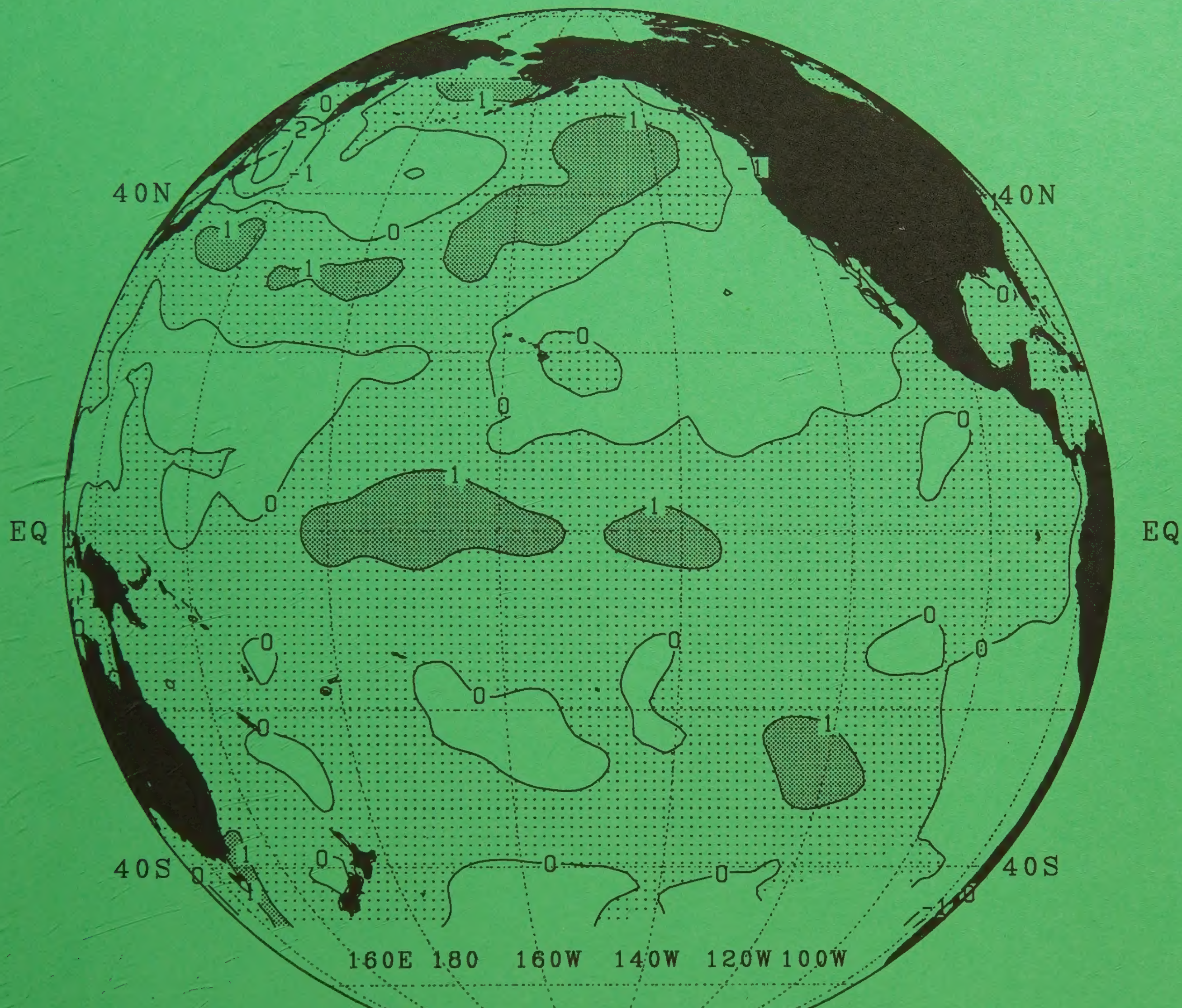
# 気象庁海洋月報

# Monthly Ocean Report
## August 2002 (No. 116)






Climate and Marine Department

Japan Meteorological Agency

気象庁 気候・海洋気象部

平成14年8月

気象庁海洋月報は、気象庁 気候・海洋気象部 海洋気象情報室で作成しています。
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表紙は、2002 年 8 月の太平洋の月平均海面水温偏差図です。
陰影部は、平年より高温の海域を示しています。

The figure on the front cover shows the monthly mean SST anomalies for August 2002 in the Pacific Ocean.
Areas of positive anomalies are shaded.

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# 海況の特徴（２００２年８月）

## 日本近海の海況

海面水温は、本州沿岸を除く日本海と38° N以北で平年より低く、オホーツク海南部から北海道の東方には－2℃を超える負偏差が見られた。東海沖から関東の東方では平年より1℃以上高かった（図４）。

黒潮は、四国から紀伊半島にかけて接岸した後、東海沖を東北東に流れ、三宅島付近を通り、上旬は房総半島に接岸して、中・下旬は房総半島沖を北東に流れていた（図９）。

## 太平洋の海況

太平洋赤道域の海面水温は、175° Eから135° Wにかけて平年より1℃以上高く、170° W付近には＋1.5℃を超える正偏差が見られた。

北太平洋の海面水温は、35° Nに沿った145° Eから160° E、30° Nに沿った165° Eから175° W、および30° N、165° Wから50° N、135° Wにかけて平年より1℃以上高かった。一方、40° Nに沿った165° W以西とカリフォルニア半島沿岸では平年より0.5℃以上低かった（図１７）。

# Highlights August 2002

## Seas adjacent to Japan

SSTs were generally below normal in the Japan Sea except the seas along the coast of Honshu, and in seas north of 38°N. Negative SST anomalies exceeding -2℃ were found in the southern part of the Sea of Okhotsk and east of Hokkaido. Positive SST anomalies exceeding +1℃ were found from off Tokai to east of Kanto (Fig. 4).

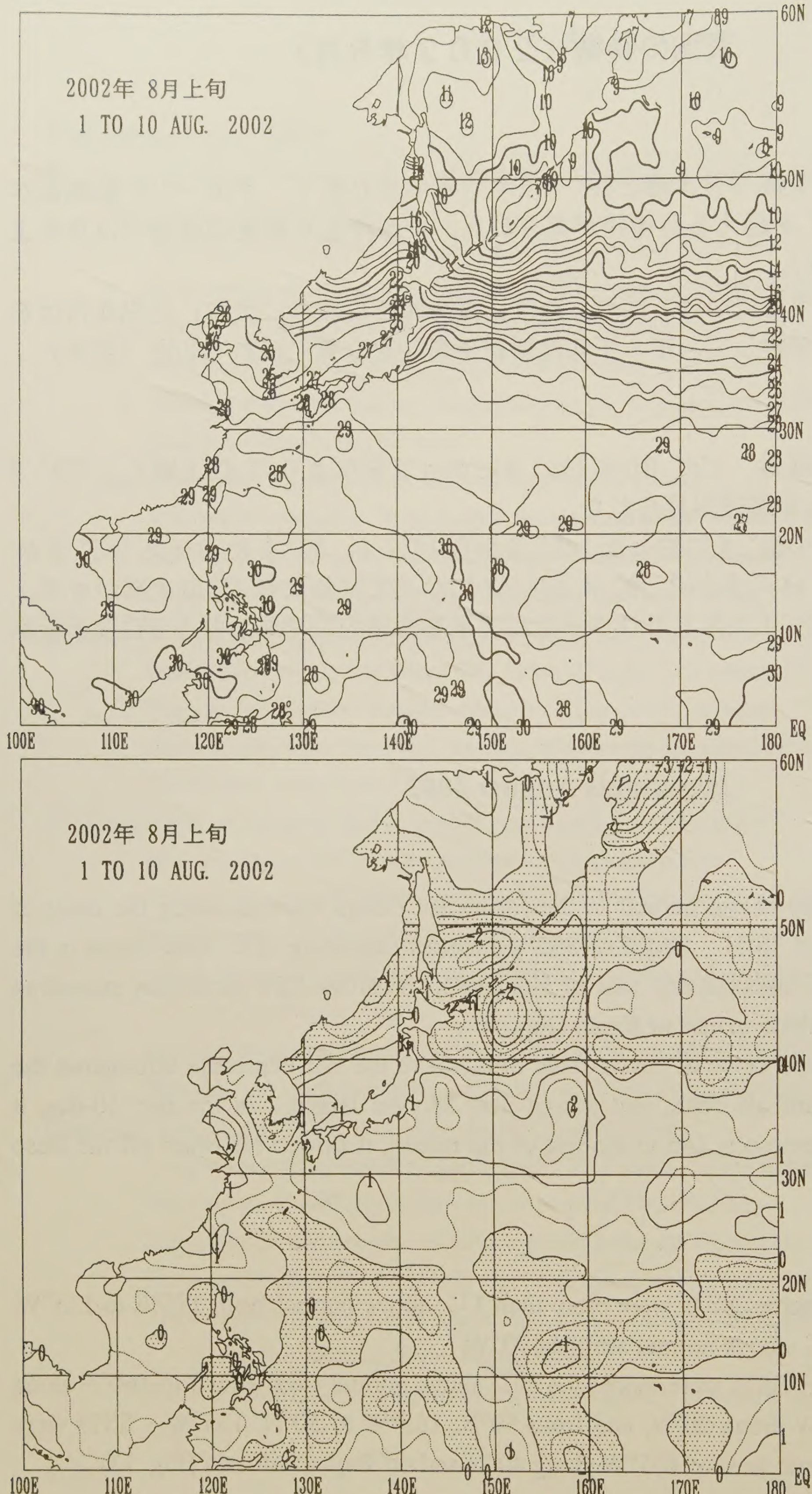
The Kuroshio flowed close to coasts from Shikoku to the Kii Peninsula throughout the month. It flowed ENE-ward off Tokai and passed near Miyake Island. In the first 10-day, it flowed close to the Boso Peninsula, and in the rest of the month, it flowed NE-ward off the Boso Peninsula (Fig. 9).

## Pacific Ocean

In the equatorial Pacific, SSTs were more than 1℃ above normal from 175°E to 135°W. SSTs were more than +1.5℃ above normal around 170°W.

In the North Pacific, SSTs were more than 1℃ above normal from 145°E to 160°E along 35°N, from 165°E to 175°W along 30°N, and from 30°N, 165°W to 50°N, 135°W. SSTs were more than 0.5℃ below normal west of 165°W along 40°N and off Baja California (Fig. 17).

Ten-day mean SST & Anomalies

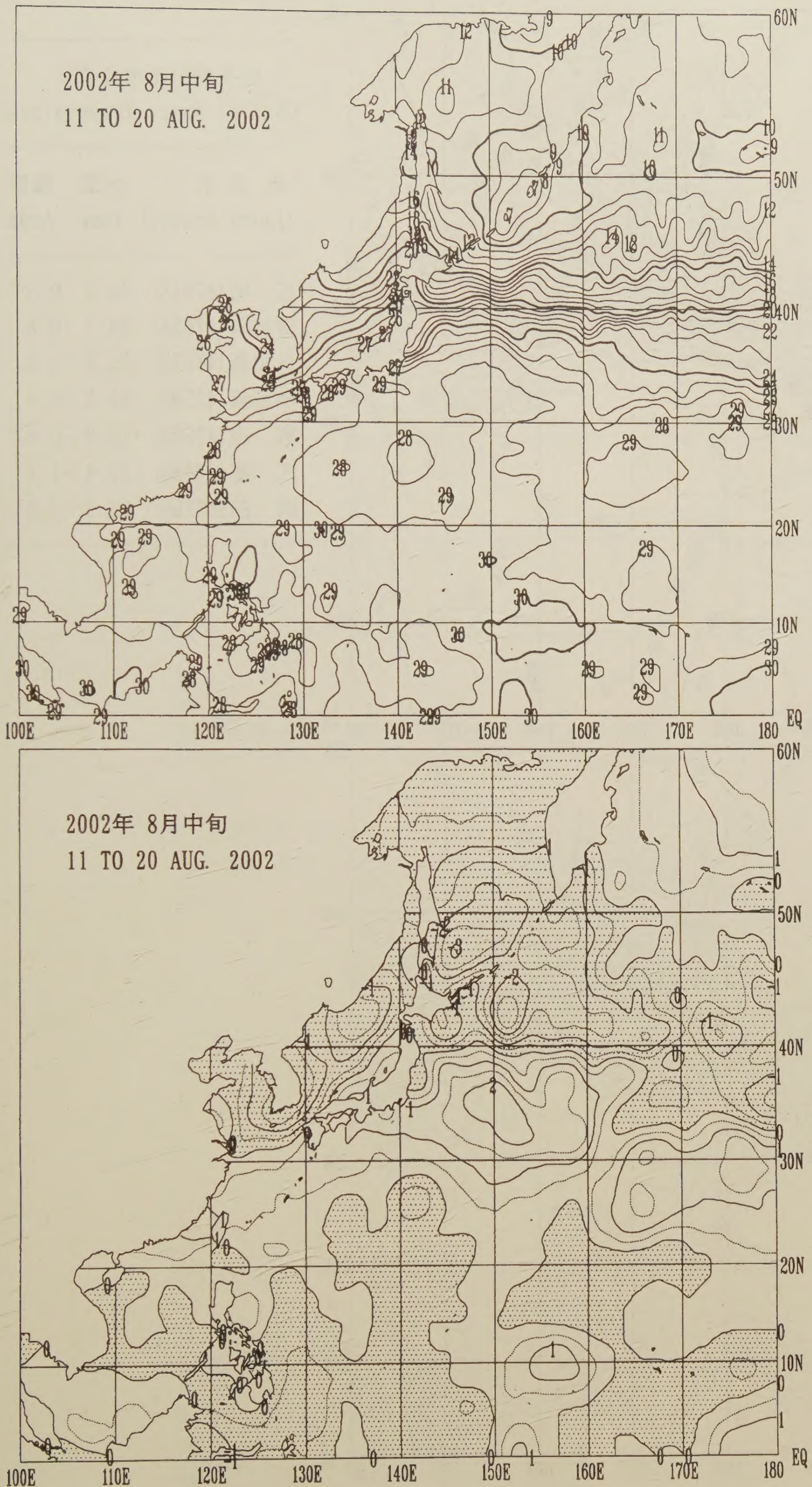



旬平均沿岸水温(℃)
Coastal Water Temperature

| 地点名 (Index Number) | 水温 Temp. | 偏差 Anom. |
|---|---|---|
| 石　垣(47918) | 28.1 | -0.9 |
| 御前崎(47655) | 26.1 | 0.6 |
| 八丈島(47678) | 26.6 | 0.2 |
| 小名浜(47598) | 20.6 | 0.2 |
| 宮　古(47585) | 19.3 | 0.5 |
| 江　差(47428) | 23.0 | 1.0 |
| 浜　田(47755) | 27.9 | 1.7 |

第1図 北西太平洋旬平均海面水温図(上)及び偏差図(下)(2002年 8月上旬)

Fig.1 Ten-day mean SST (top) and anomalies (bottom) in the western North Pacific for the 1st ten-day period in AUG 2002. Anomalies are computed from the JMA climatology (1971-2000). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown by broken lines. Negative anomalies are spotted.



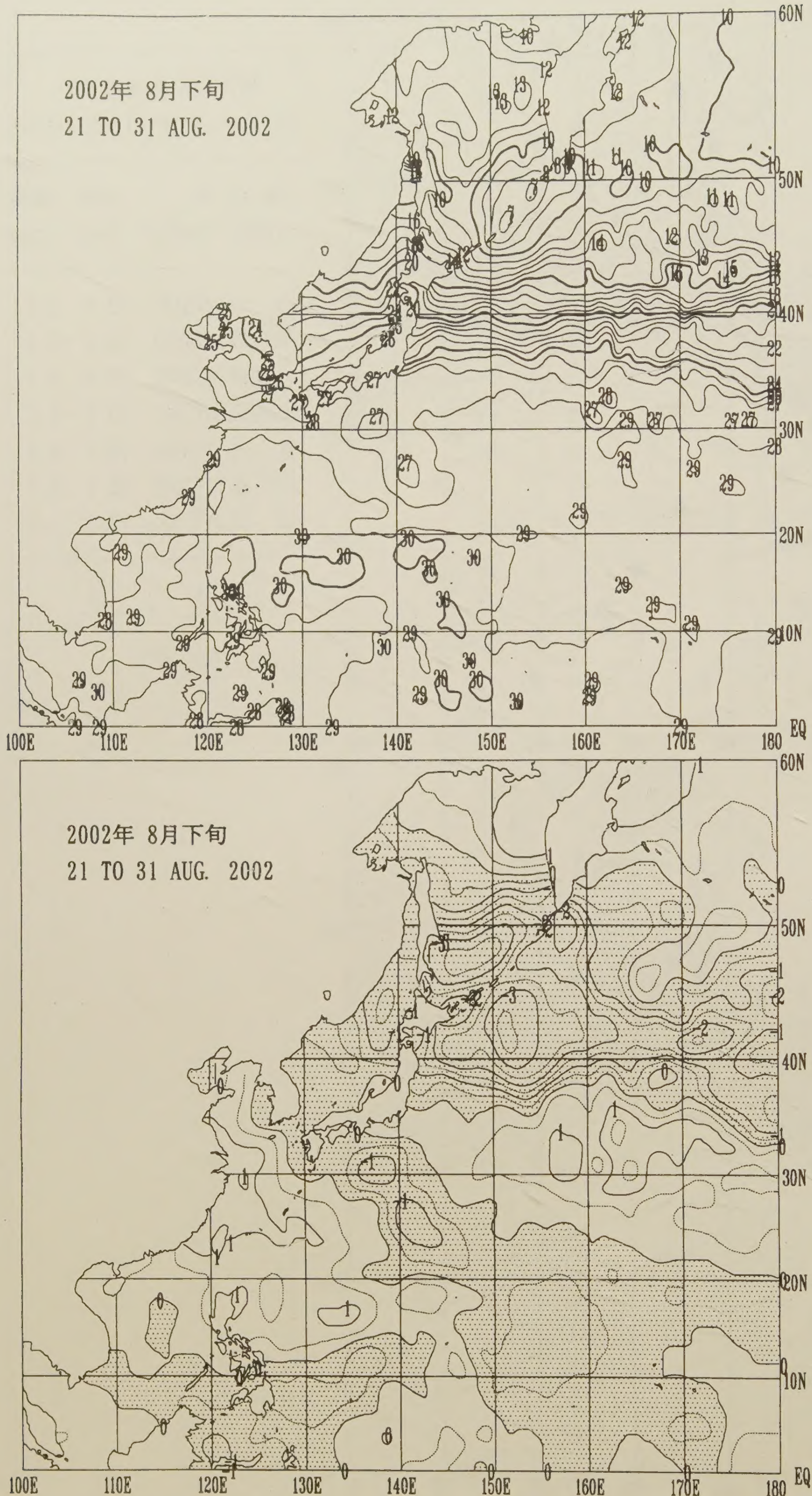

旬平均沿岸水温(℃)
Coastal Water Temperature

| 地点名 (Index Number) | 水温 Temp. | 偏差 Anom. |
| --- | --- | --- |
| 石　垣(47918) | 29.0 | 0.0 |
| 御前崎(47655) | 25.2 | -0.9 |
| 八丈島(47678) | 27.0 | 0.1 |
| 小名浜(47598) | 20.7 | -0.7 |
| 宮　古(47585) | 19.7 | 0.0 |
| 江　差(47428) | 23.1 | 0.1 |
| 浜　田(47755) | 27.6 | 1.0 |

第2図 北西太平洋旬平均海面水温図(上)及び偏差図(下) (2002年 8月中旬)

Fig. 2 Ten-day mean SST (top) and anomalies (bottom) in the western North Pacific for the 2nd ten-day period in AUG 2002. Anomalies are computed from the JMA climatology (1971-2000). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown by broken lines. Negative anomalies are spotted.

Ten-day mean SST & Anomalies



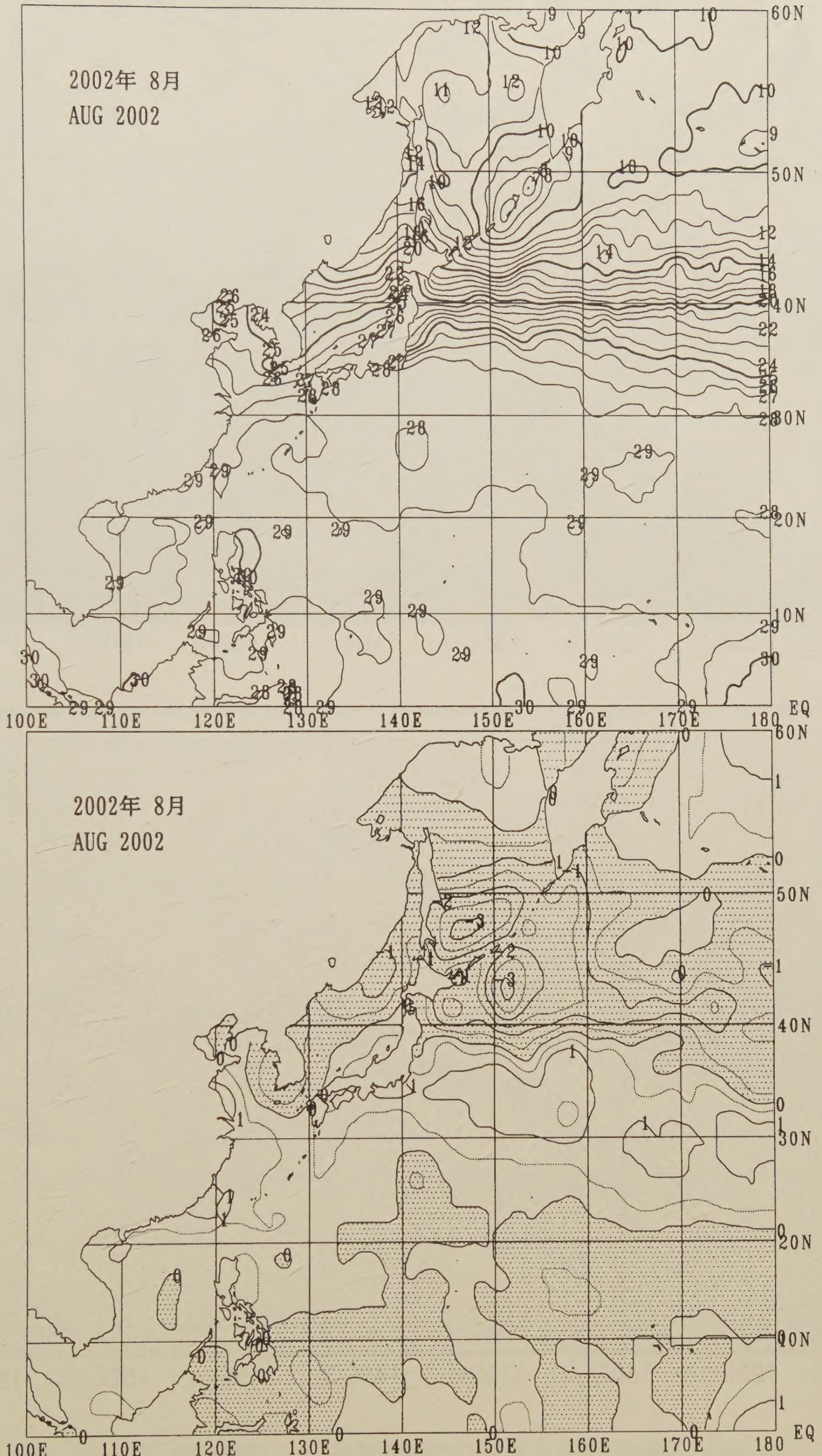

旬平均沿岸水温 (℃)
Coastal Water Temperature

| 地点名 (Index Number) | 水温 Temp. | 偏差 Anom. |
|---|---|---|
| 石　垣 (47918) | 29.3 | 0.5 |
| 御前崎 (47655) | 26.7 | 0.8 |
| 八丈島 (47678) | 25.8 | -1.2 |
| 小名浜 (47598) | 21.3 | -0.8 |
| 宮　古 (47585) | 19.8 | -0.4 |
| 江　差 (47428) | 22.4 | -1.1 |
| 浜　田 (47755) | 25.9 | -0.9 |

第3図 北西太平洋旬平均海面水温図 (上) 及び偏差図 (下) (2002年 8月下旬)

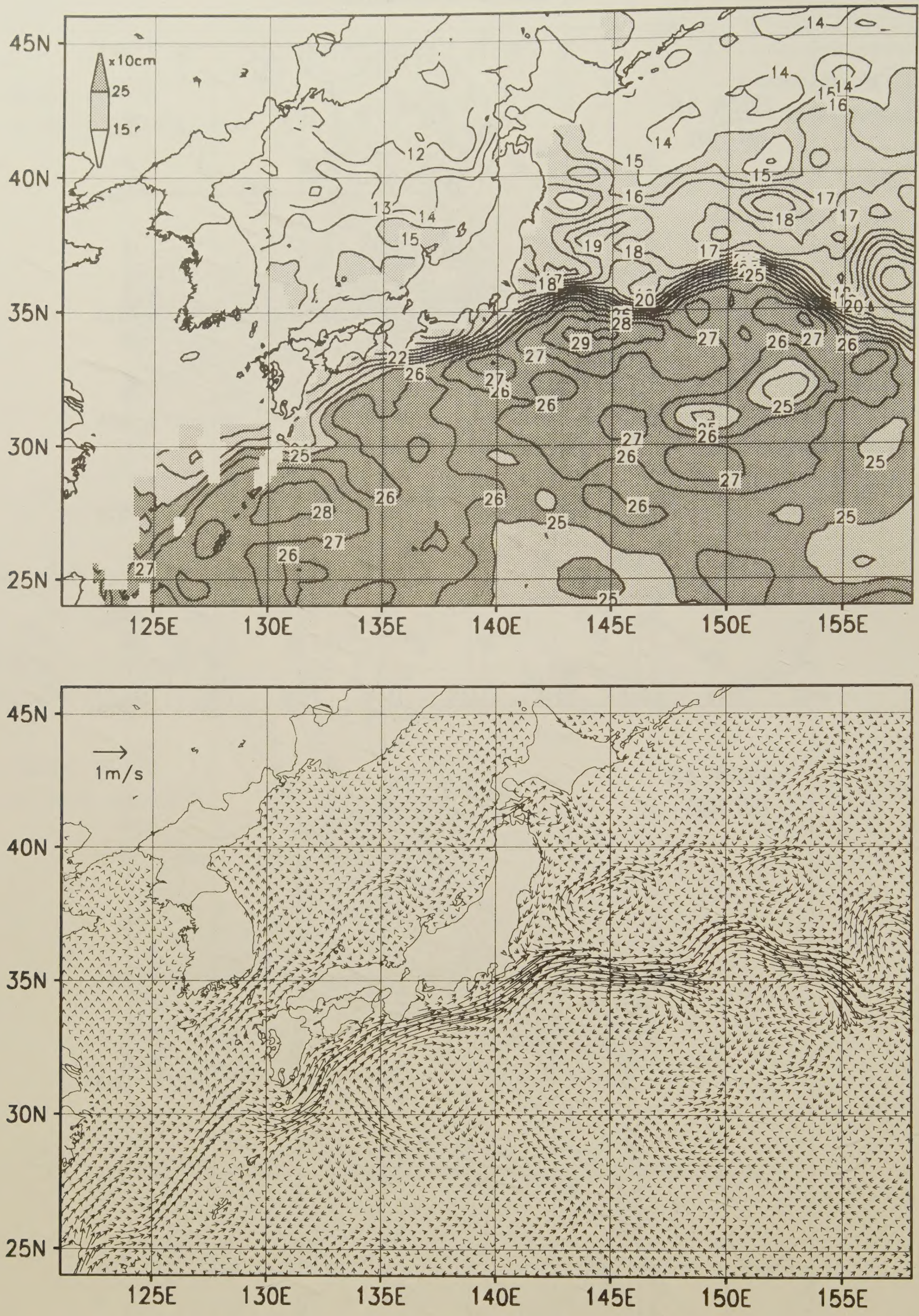
Fig. 3 Ten-day mean SST (top) and anomalies (bottom) in the western North Pacific for the 3rd ten-day period in AUG 2002. Anomalies are computed from the JMA climatology (1971-2000). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown by broken lines. Negative anomalies are spotted.

Monthly Mean SST & Anomalies



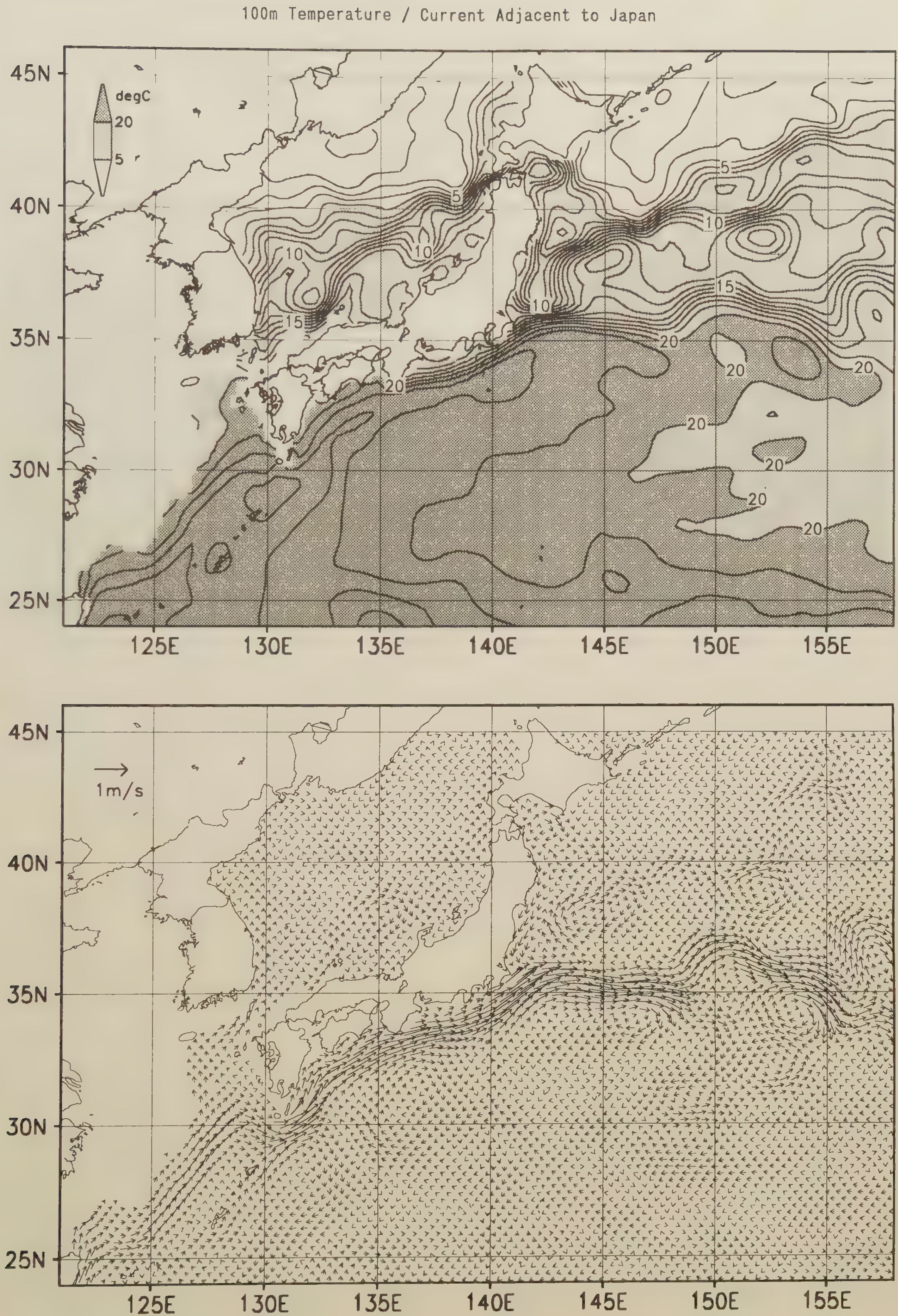

第4図 北西太平洋月平均海面水温図(上)及び偏差図(下) (2002年 8月)

Fig. 4 Monthly mean SST (top) and anomalies (bottom) in the western North Pacific for AUG 2002. Anomalies are computed from the JMA climatology (1971-2000). Contour interval is 1°C and additional anomaly contours of 0.5°C are shown by broken lines. Negative anomalies are spotted.



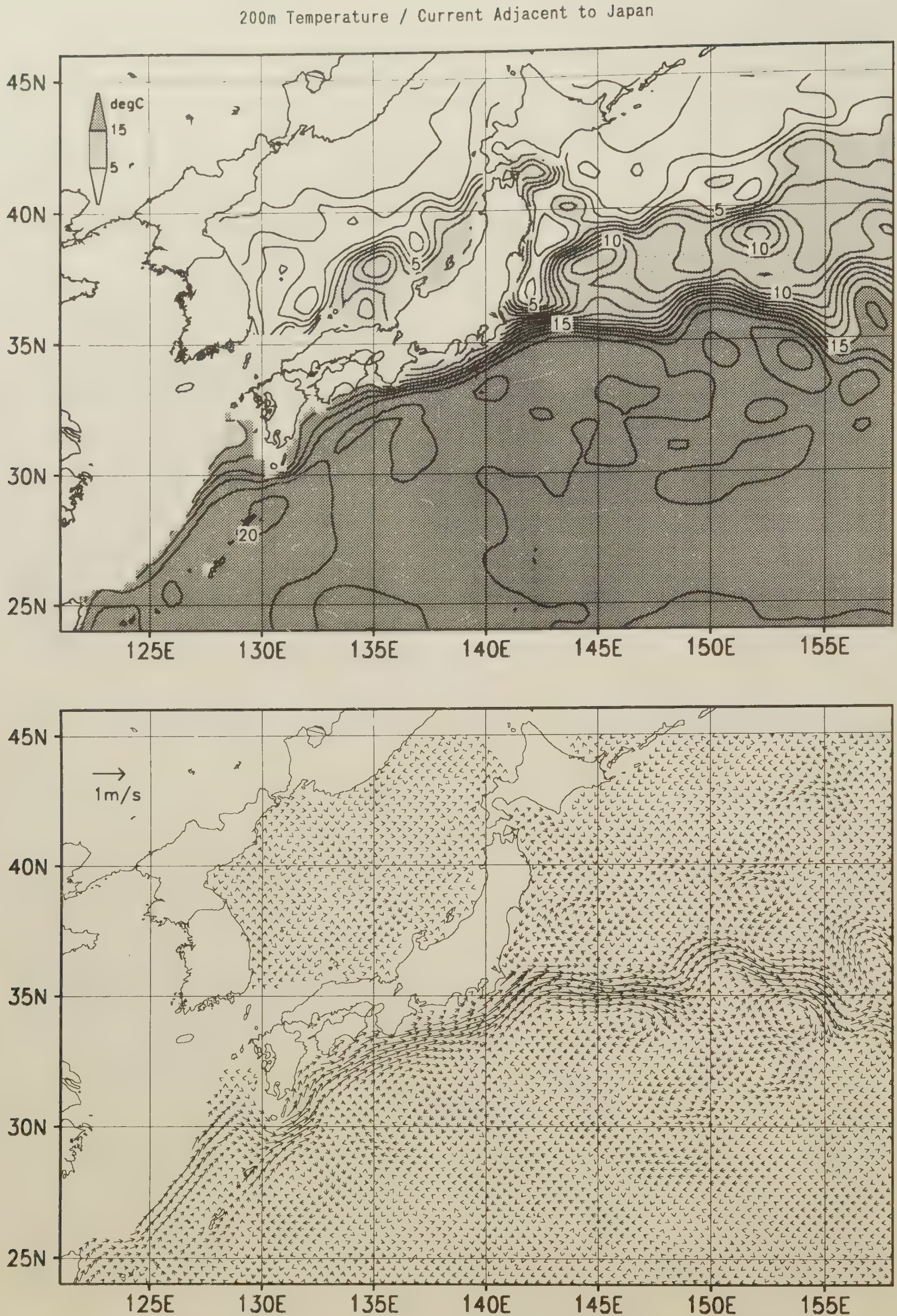

第5図　日本近海月平均海面高度分布図(上)と海面海流図(下)（2002年8月）
（海洋総合解析システムによる）

Fig. 5　Monthly mean sea surface height (top) and current (bottom) in seas adjacent to Japan for August 2002. Contour interval is 10cm (top). (calculated by the Ocean Comprehensive Analysis System)



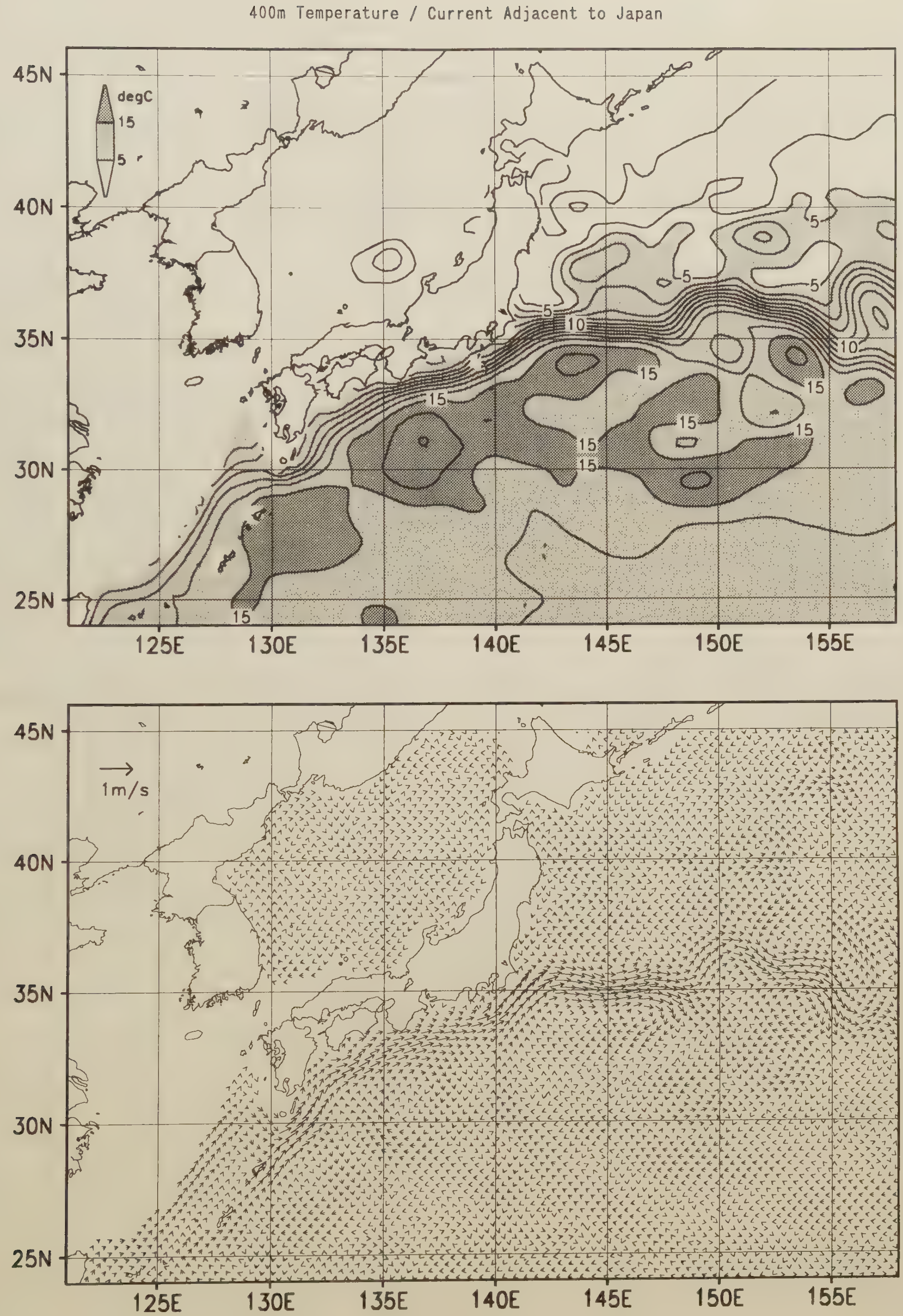

第 6 図　日本近海月平均表層水温図（上）と表層海流図（下）（深さ 100 m）（2002 年 8 月）
（海洋総合解析システムによる）

Fig. 6　Monthly mean subsurface (100 m) temperature (top) and current (bottom) in seas adjacent to Japan for August 2002. Contour interval is 1 ℃ (top). (calculated by the Ocean Comprehensive Analysis System)




第７図　日本近海月平均表層水温図（上）と表層海流図（下）（深さ 200 m）（2002 年 8 月）
（海洋総合解析システムによる）

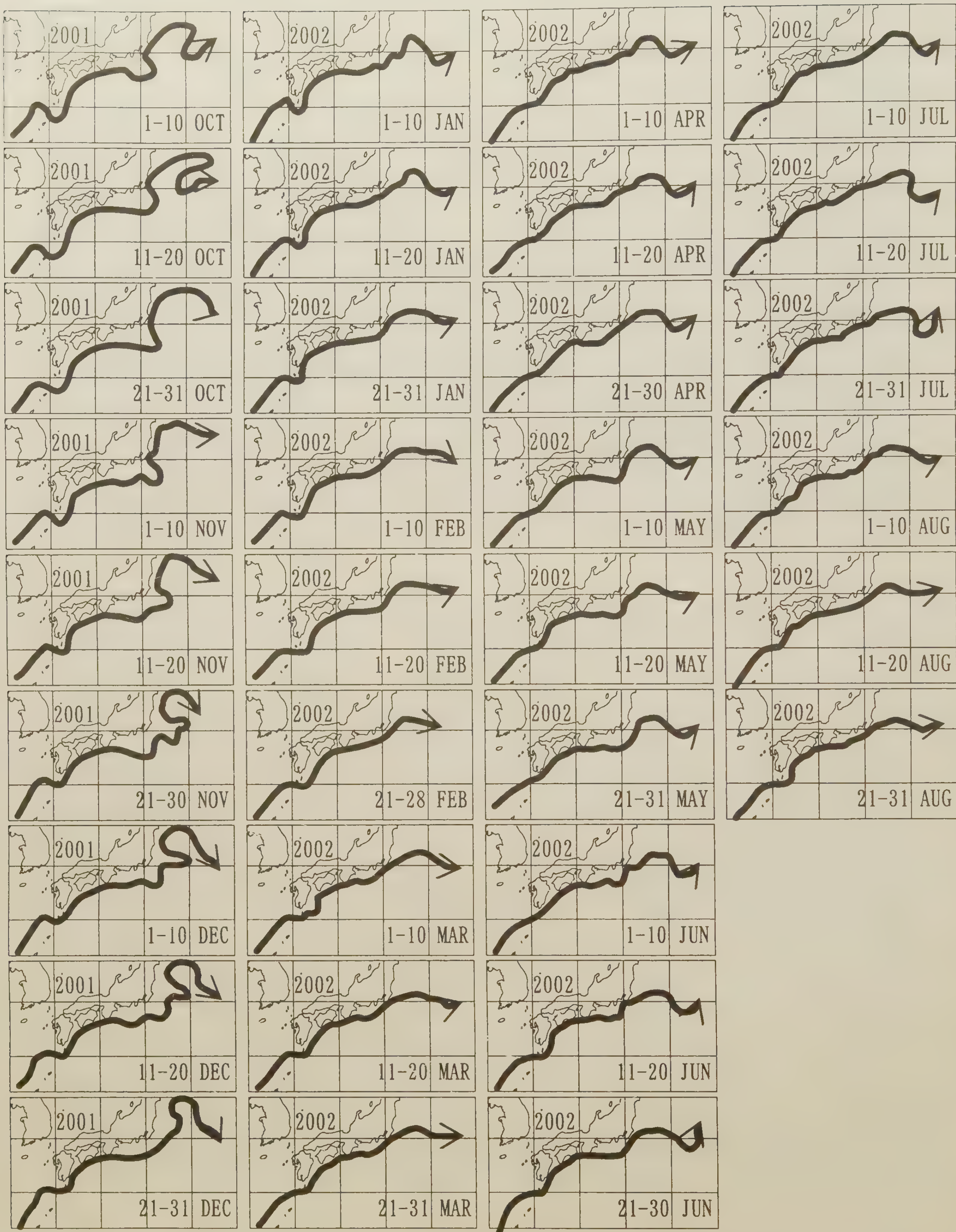
Fig. 7　Monthly mean subsurface (200 m) temperature (top) and current (bottom) in seas adjacent to Japan for August 2002. Contour interval is 1 °C (top). (calculated by the Ocean Comprehensive Analysis System)




第 8 図　日本近海月平均表層水温図（上）と表層海流図（下）　（深さ 400 m）（2002 年 8 月）
（海洋総合解析システムによる）

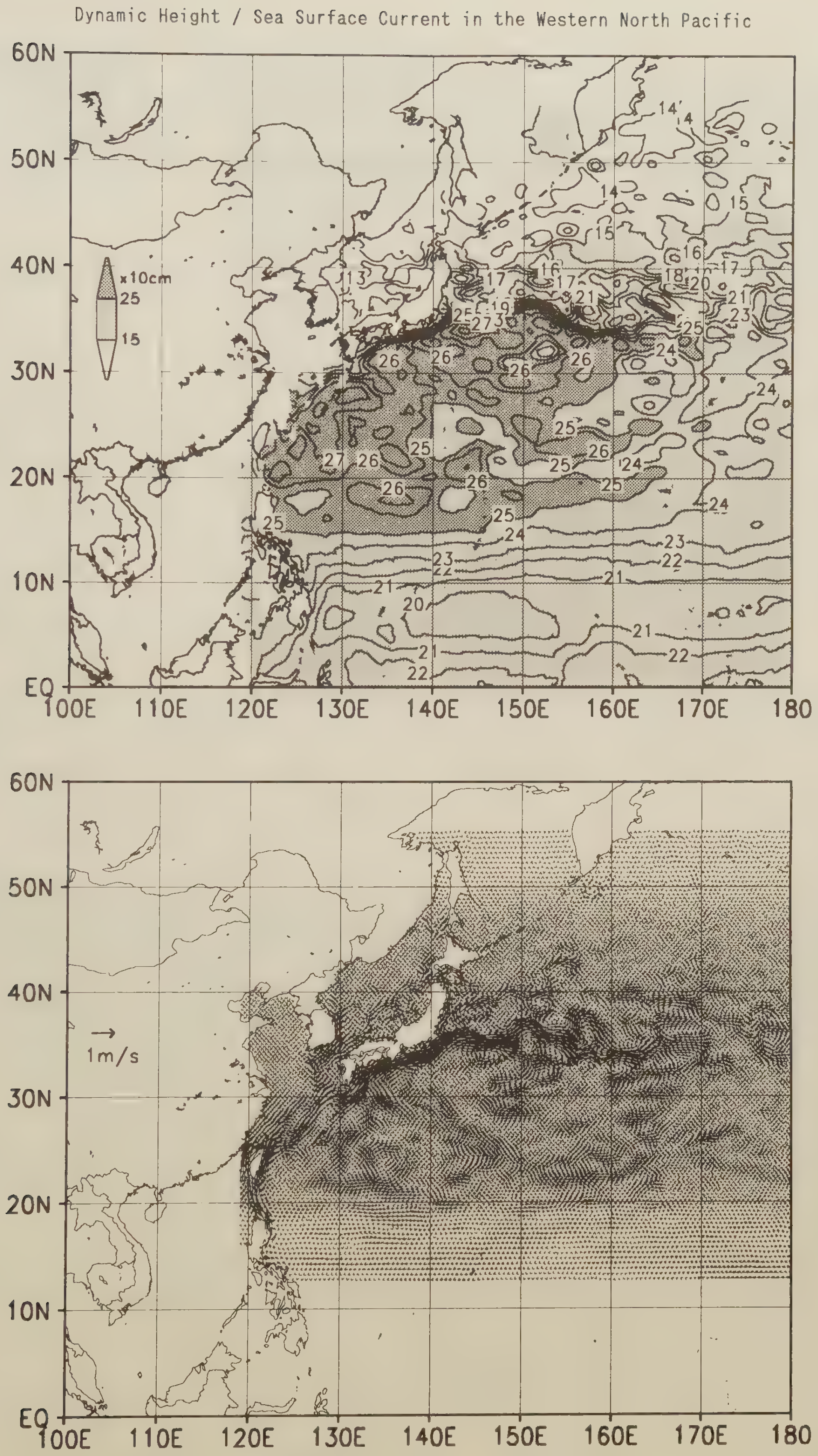
Fig. 8　Monthly mean subsurface (400 m) temperature (top) and current (bottom) in seas adjacent to Japan for August 2002. Contour interval is 1 ˚C (top). (calculated by the Ocean Comprehensive Analysis System)

Location of the Kuroshio axis



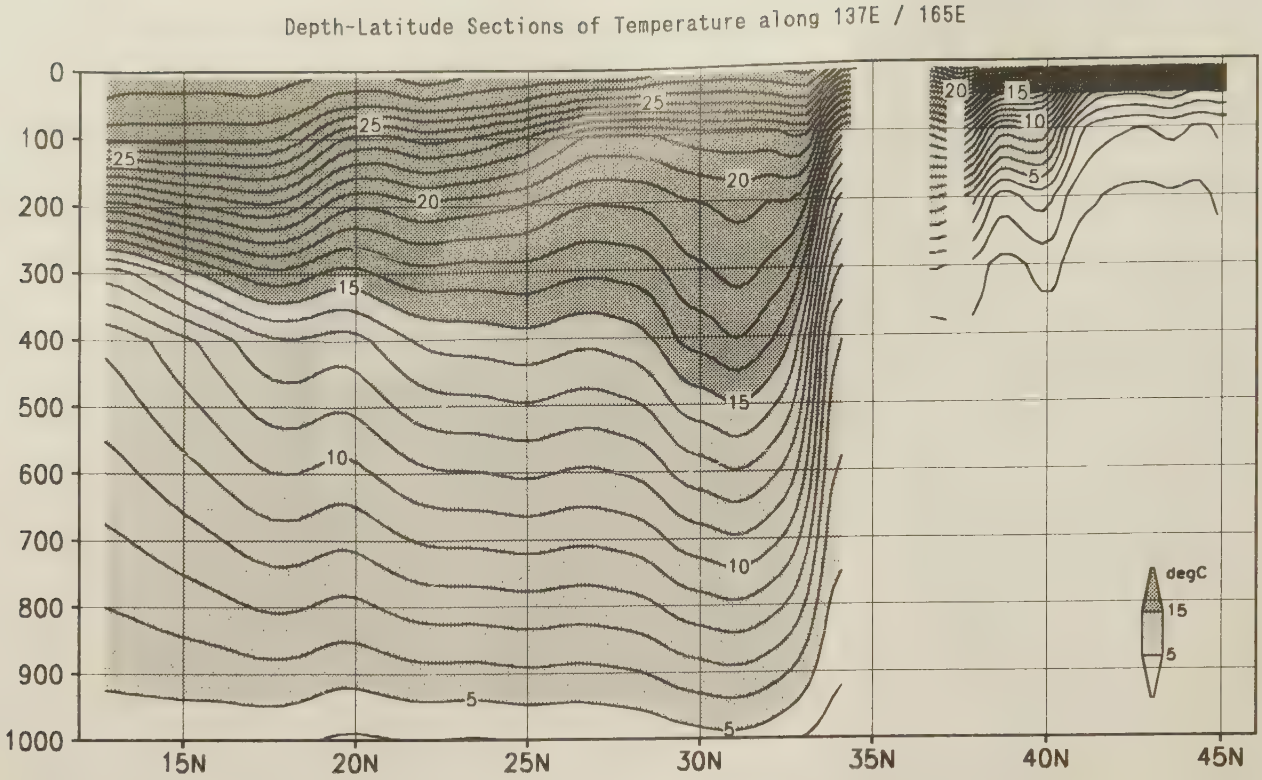

第9図 旬別黒潮流軸図

Fig. 9 Location of the Kuroshio axis



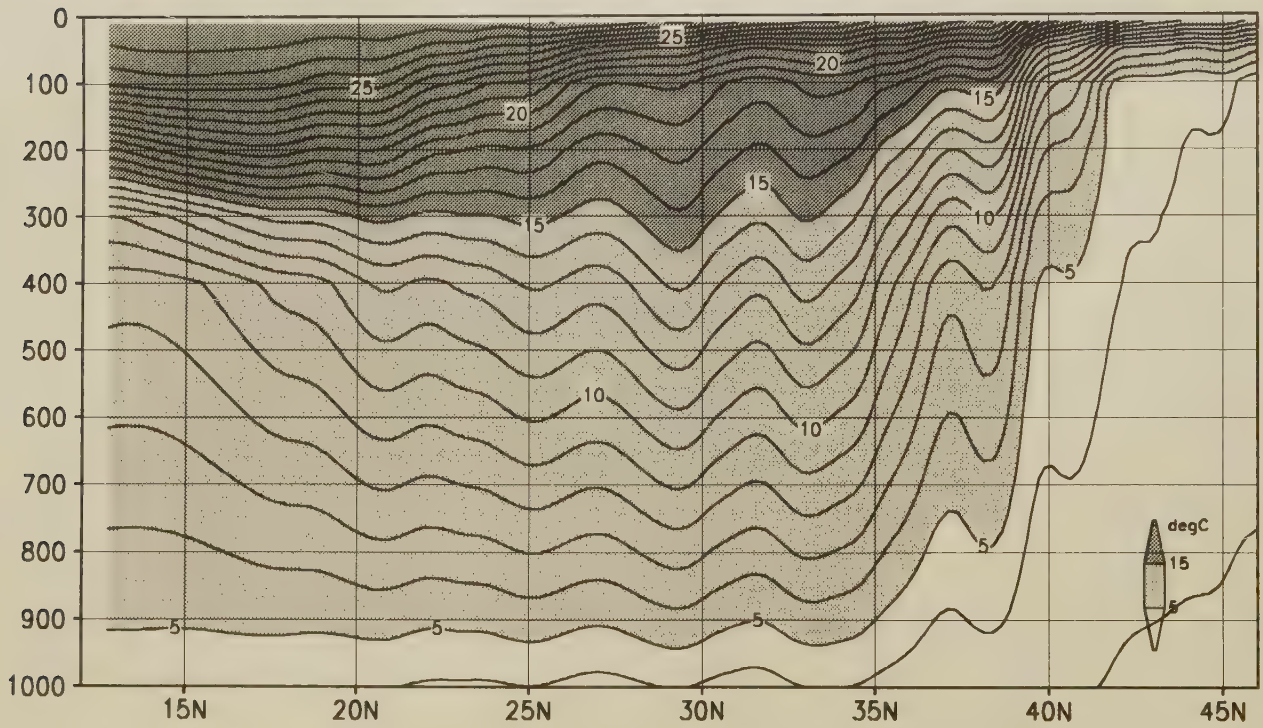

第 10 図　北西太平洋月平均海面高度分布図 (上) と海面海流図 (下) (2002 年 8 月)
（海洋総合解析システムによる）

Fig. 10　Monthly mean sea surface height (top) and current (bottom) in the western North Pacific for August 2002. Contour interval is 10cm (top). (calculated by the Ocean Comprehensive Analysis System)



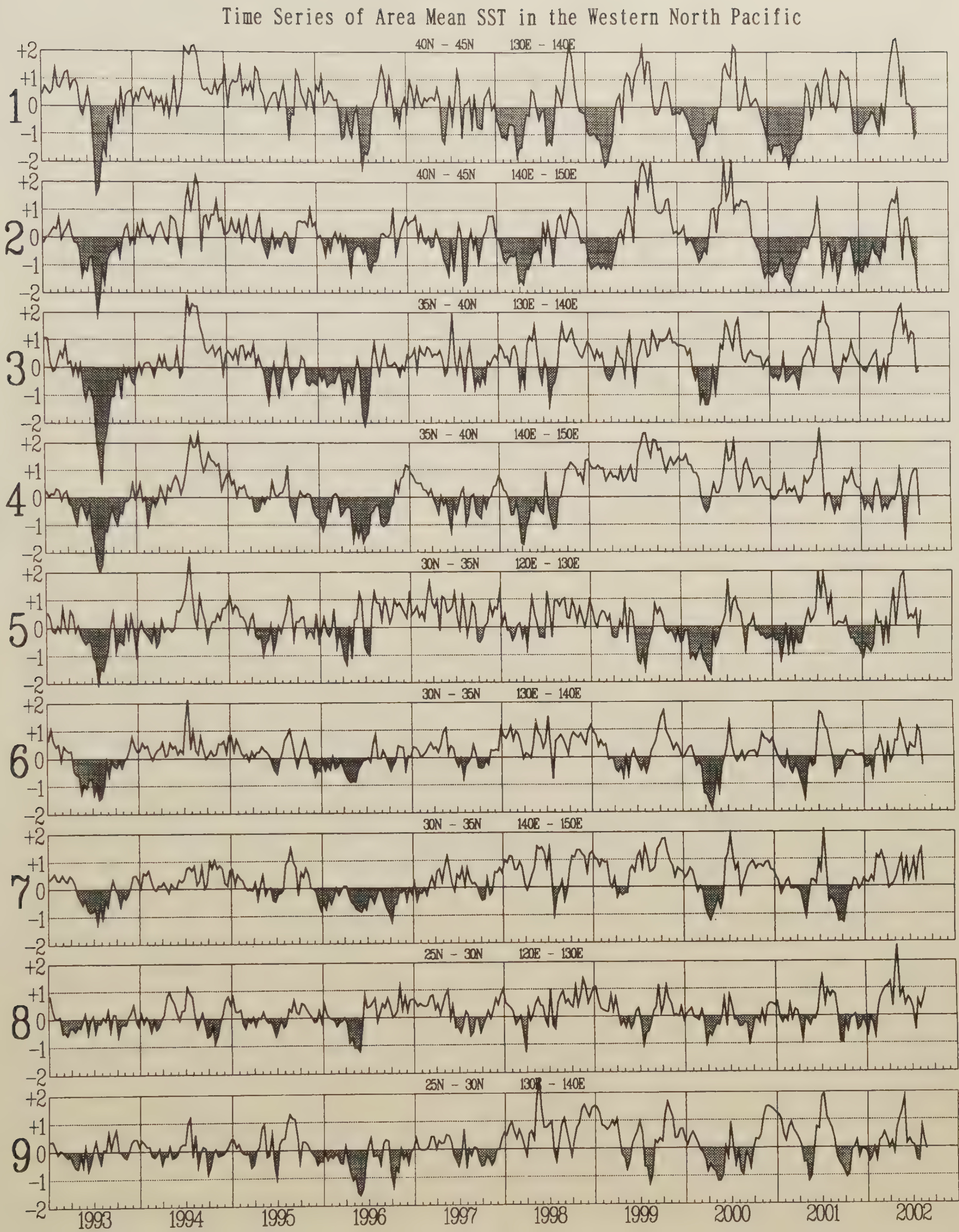

第 11 図　東経 137° 線に沿う月平均表層水温の鉛直断面図 （2002 年 8 月）
（海洋総合解析システムによる）

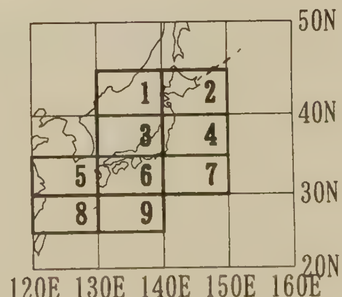
Fig. 11　Vertical cross section of monthly mean temperature along 137 °E for August 2002. Contour interval is 1 ℃. (calculated by the Ocean Comprehensive Analysis System)




第 12 図　東経 165° 線に沿う月平均表層水温の鉛直断面図 （2002 年 8 月）
（海洋総合解析システムによる）

Fig. 12　Vertical cross section of monthly mean temperature along 165 °E for August 2002. Contour interval is 1 ℃. (calculated by the Ocean Comprehensive Analysis System)

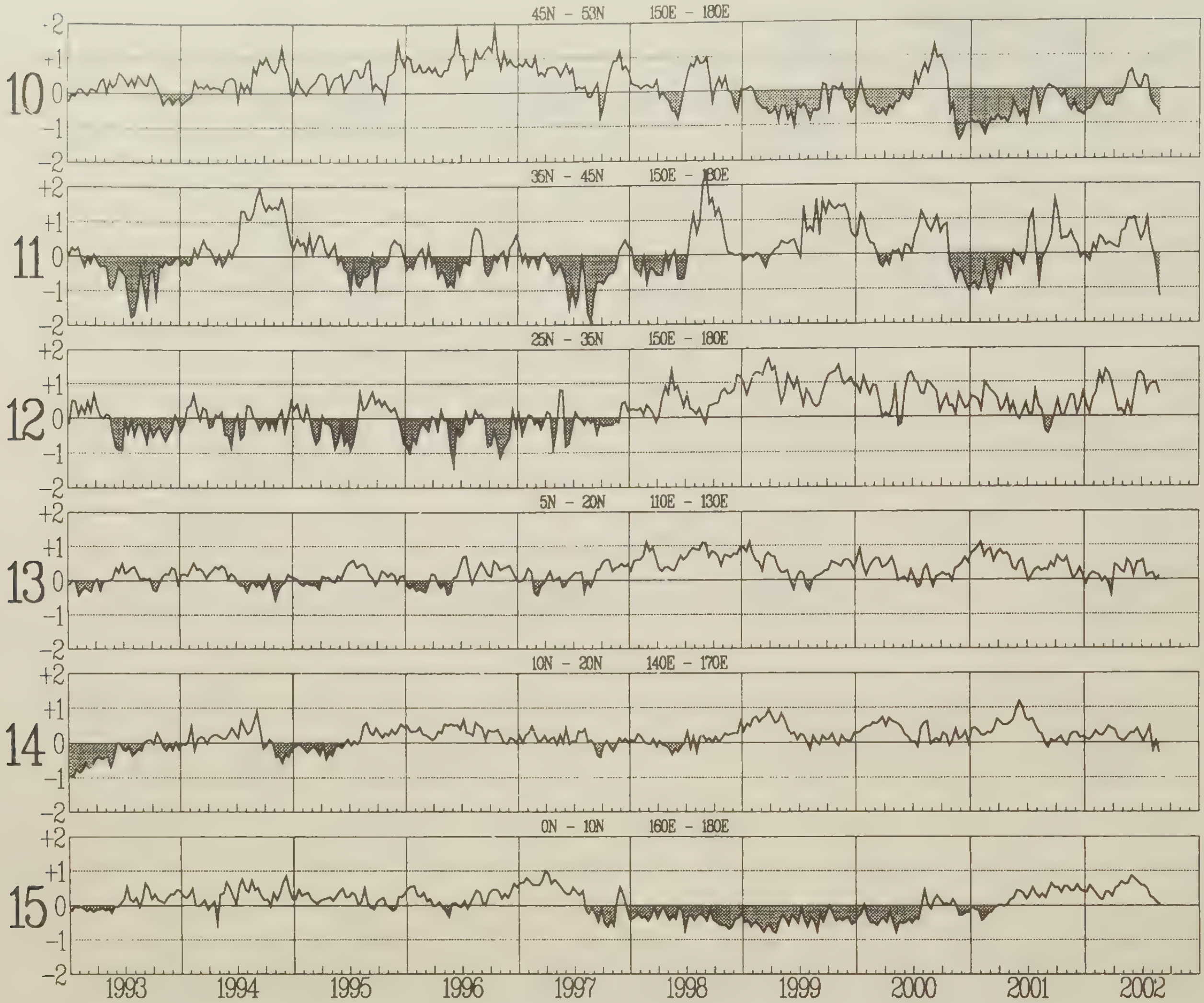



第13図　海域別旬平均海面水温平年偏差時系列図

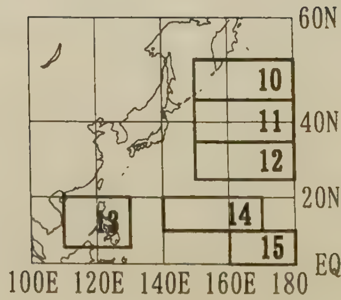
Fig. 13 Time series of the ten-day mean SST anomalies (°C) in the western North Pacific for the areas shown in the right panel. Negative anomalies are shaded. Anomalies are computed from the JMA climatology (1971-2000).

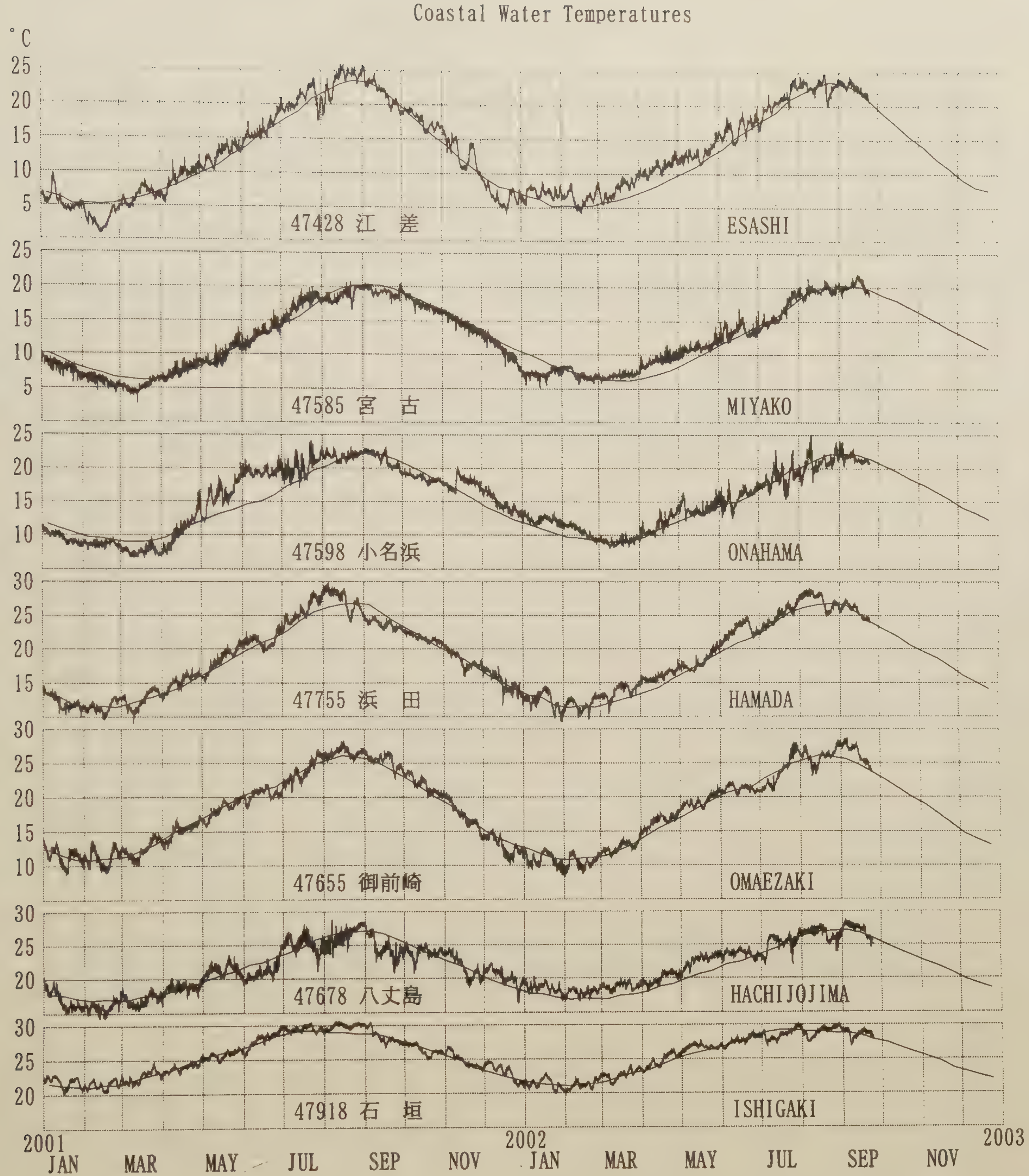
Time Series of Area Mean SST in the Western North Pacific




第13図　海域別旬平均海面水温平年偏差時系列図（つづき）

Fig. 13 (continue) Time series of the ten-day mean SST anomalies (°C) in the western North Pacific for the areas shown in the right panel. Negative anomalies are shaded. Anomalies are computed from the JMA climatology (1971-2000).

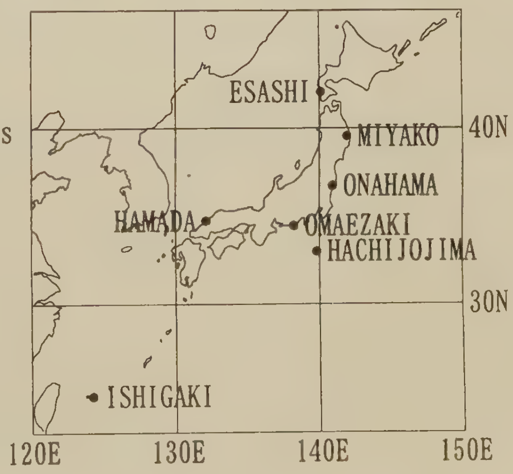


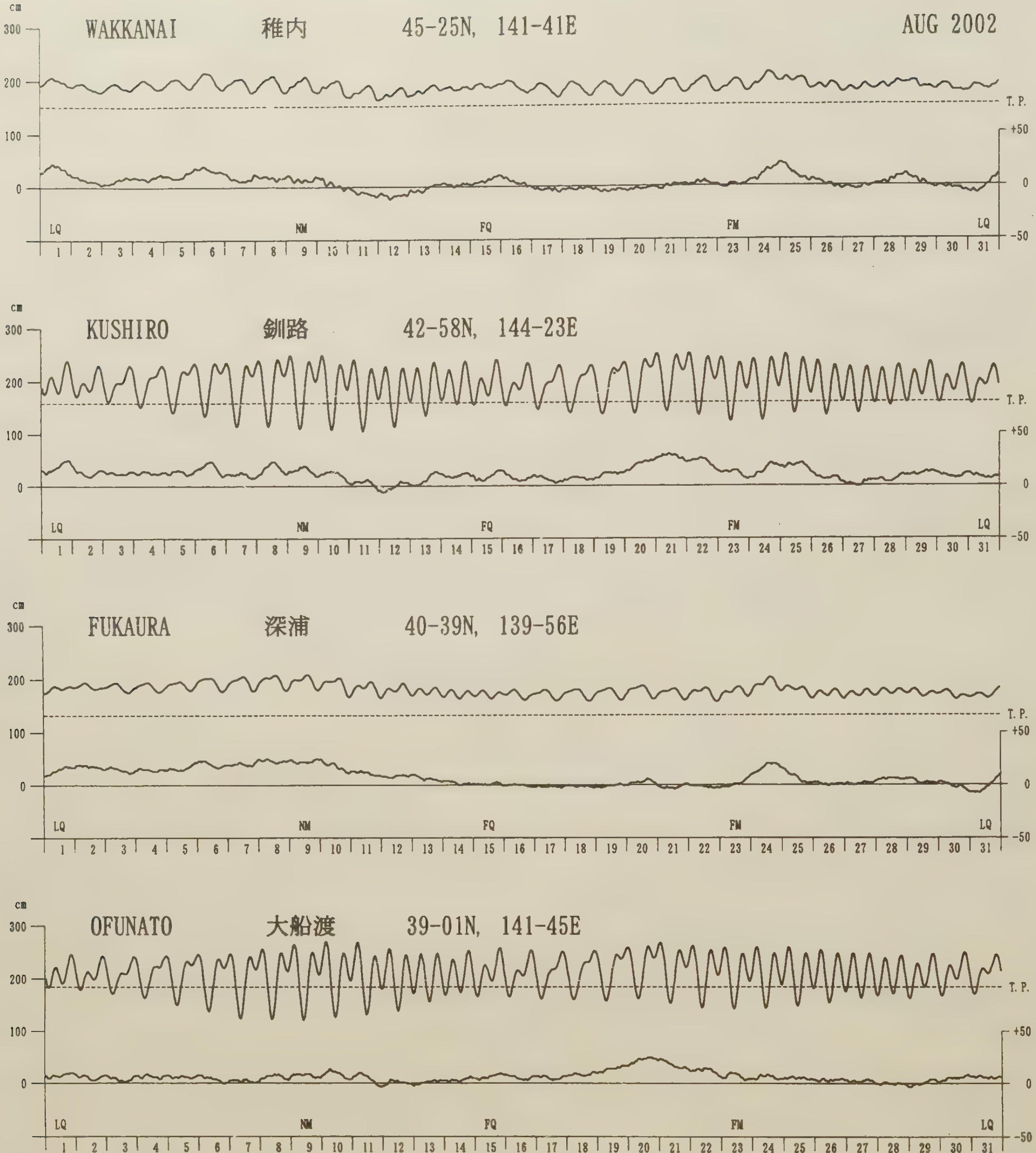



第14図 沿岸水温時系列図

Fig. 14 Time series of hourly coastal water temperatures (°C) measured at 7 coastal stations of the JMA shown in the right panel.

Thin lines show ten-day mean climatology.

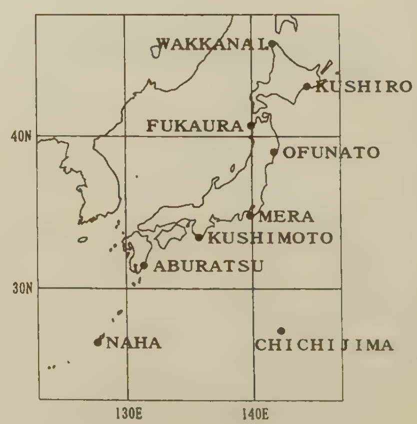


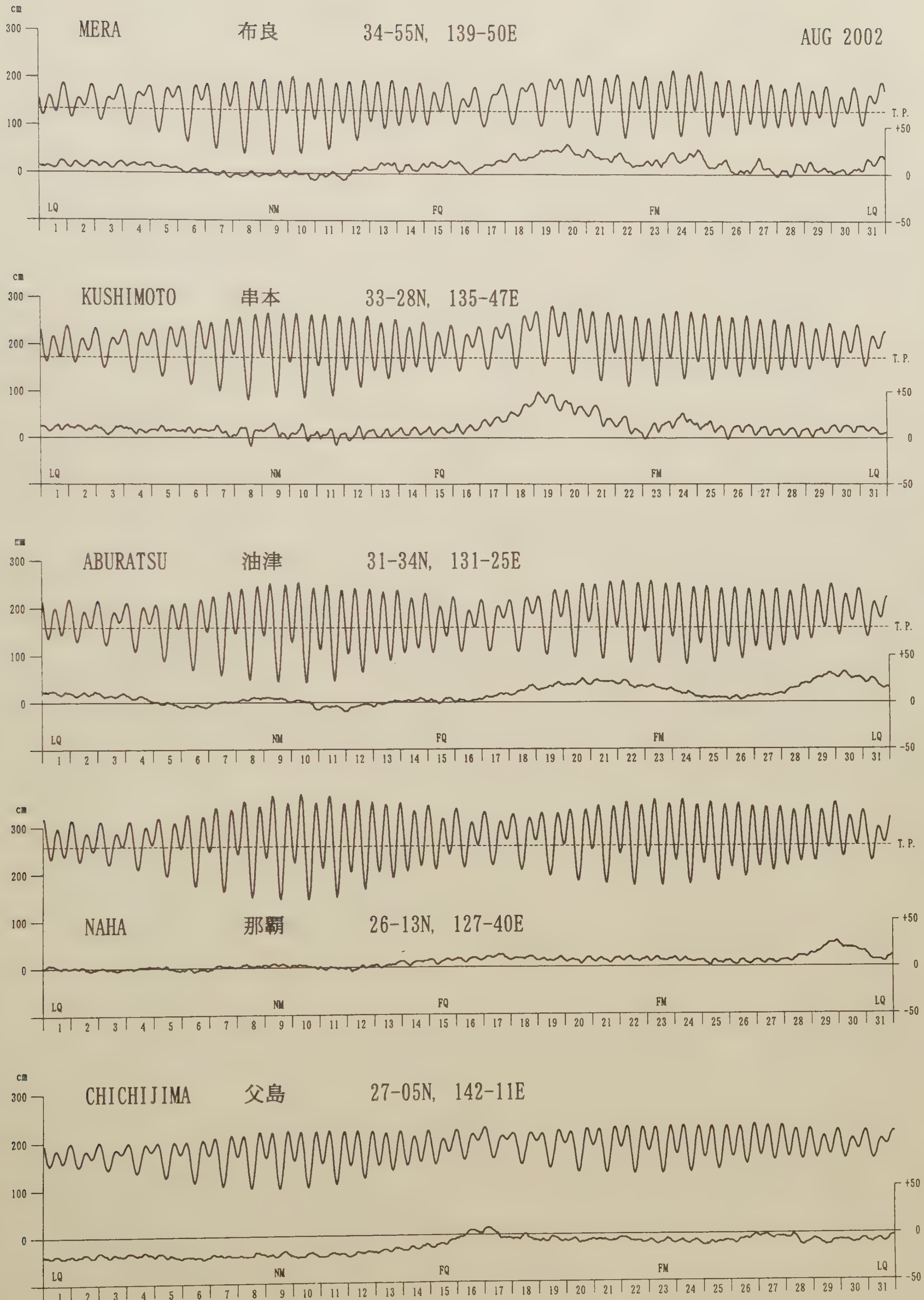



第15図 沿岸潮位時系列図（2002年 8月）

Fig. 15 Time series of hourly sea level observation (upper line) and its anomalies (lower line) at 9 stations of the JMA in the right panel.
Short term variations are removed from raw data.

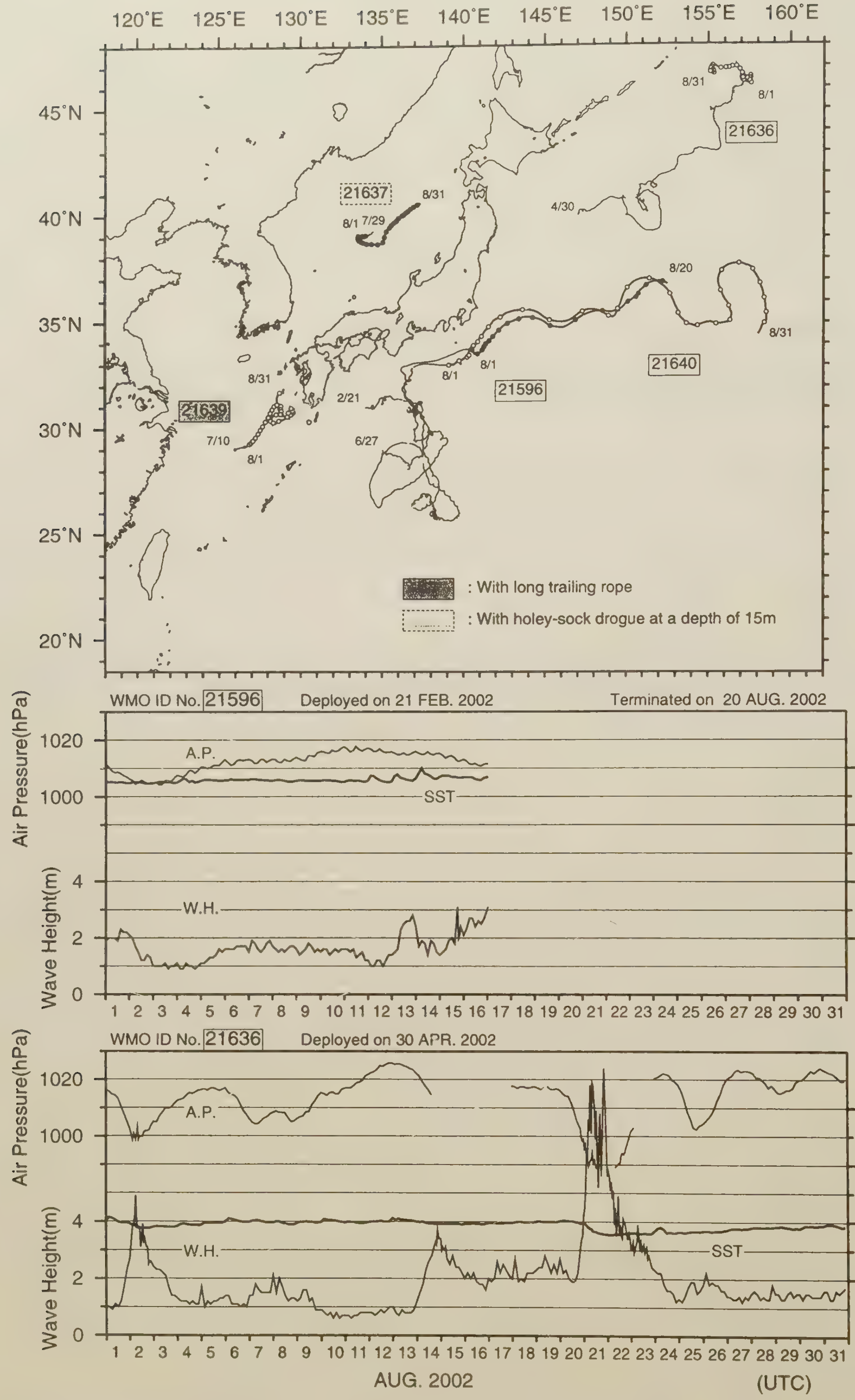
NM: new moon, FQ: first quarter
FM: full moon, LQ: last quarter
T. P. : Mean sea level of Tokyo Bay (Tokyo Peil)





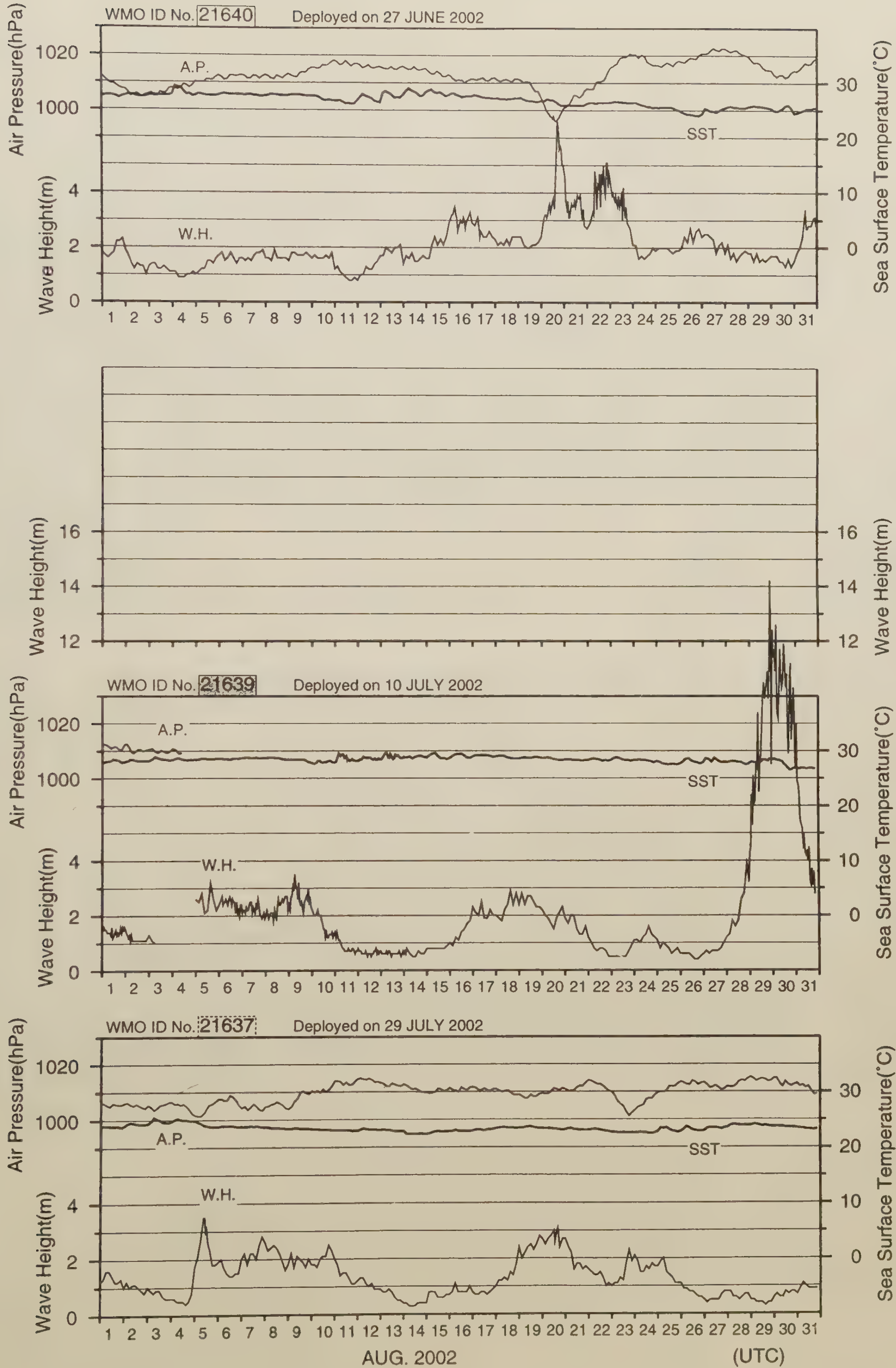

第15図 つづき

Fig. 15 continue



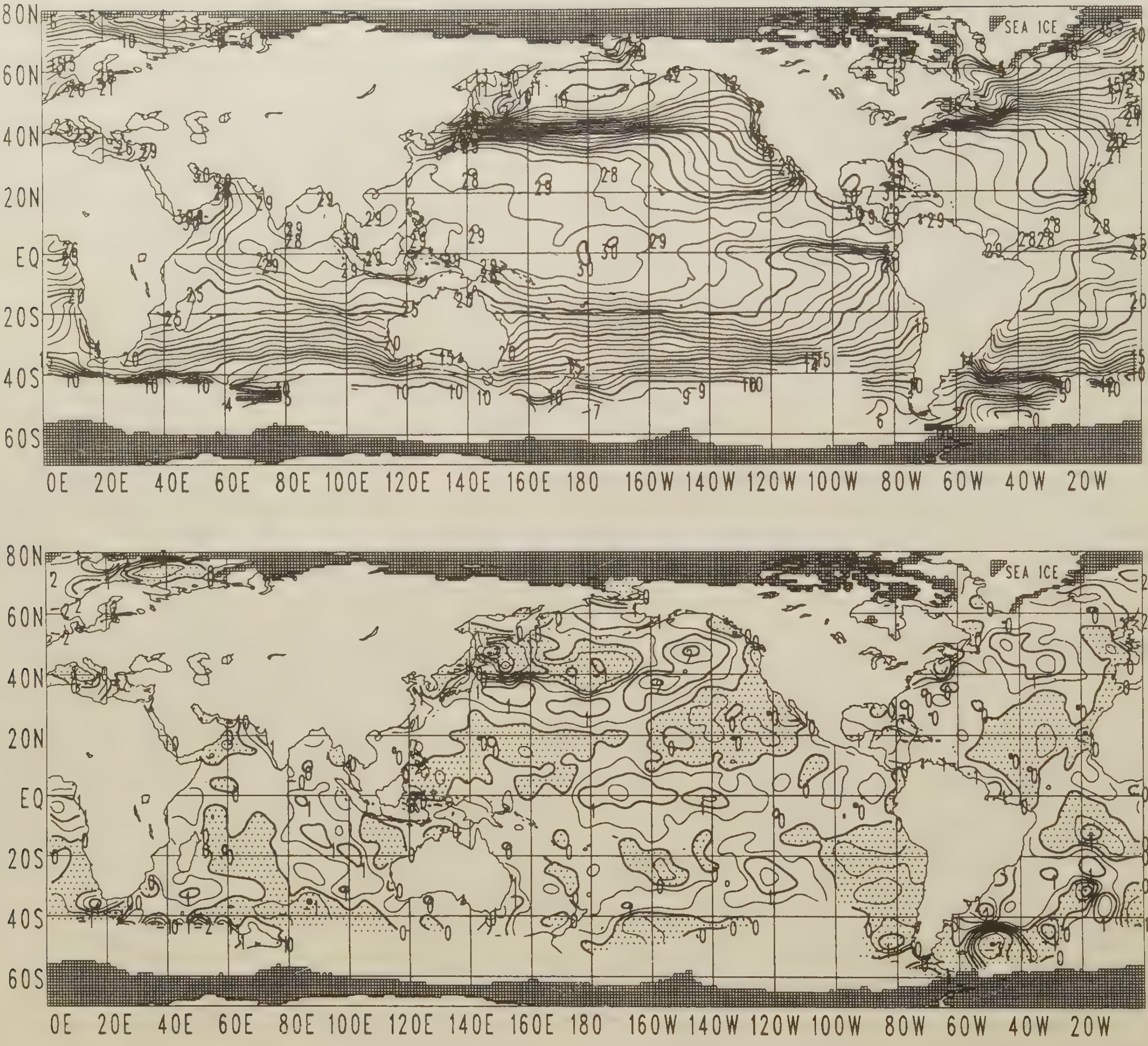

第16図　漂流型海洋気象ブイロボットの軌跡と観測要素の時系列図

Fig.16　Time series of JMA drifting buoy observation.
The upper panel shows paths of the buoys. Circles denote the position at 00h UTC everyday.
The lower panel shows time series of observation data.



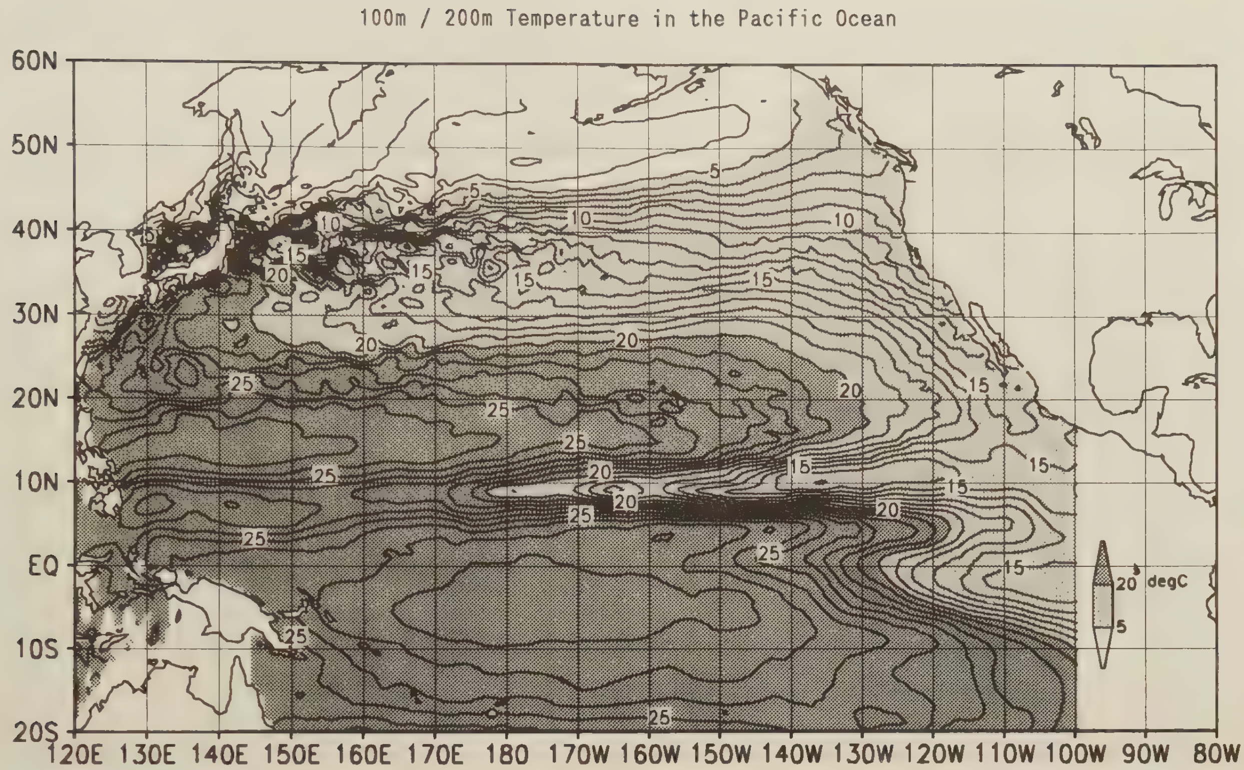

第16図 つづき
Fig.16 continue

# SST & Anomalies in the Global Ocean



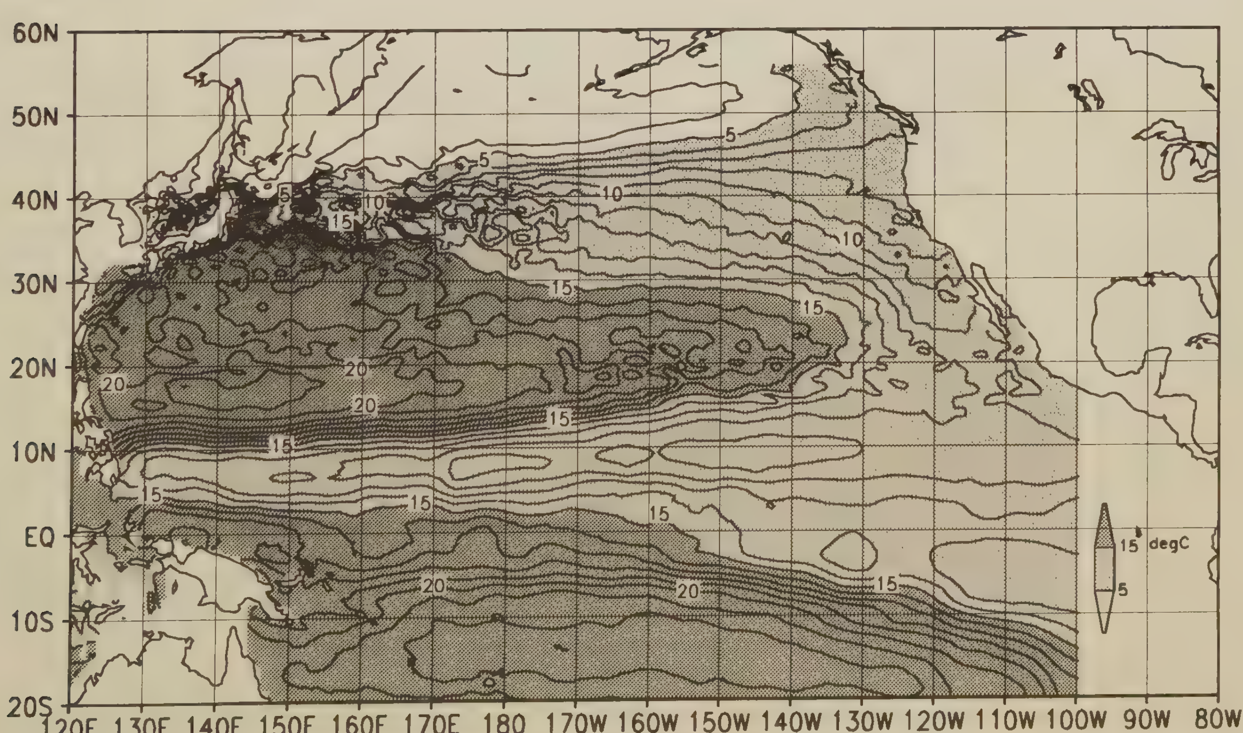

第17図　全球月平均海面水温図（上）及び偏差図（下）（2002年 8月）

Fig. 17 Monthly mean SST over the global ocean (top) and anomalies (bottom) for AUG 2002. Anomalies are computed from the JMA climatology (1971-2000). Contour interval is 1°C (top) and additional anomaly contours of ±0.5°C are shown by thin lines. Negative anomalies are spotted. Maximum coverage of sea ice is shaded. Data sources for sea ice are U.S. National Ice Center (polar regions) and JMA (the Sea of Okhotsk).



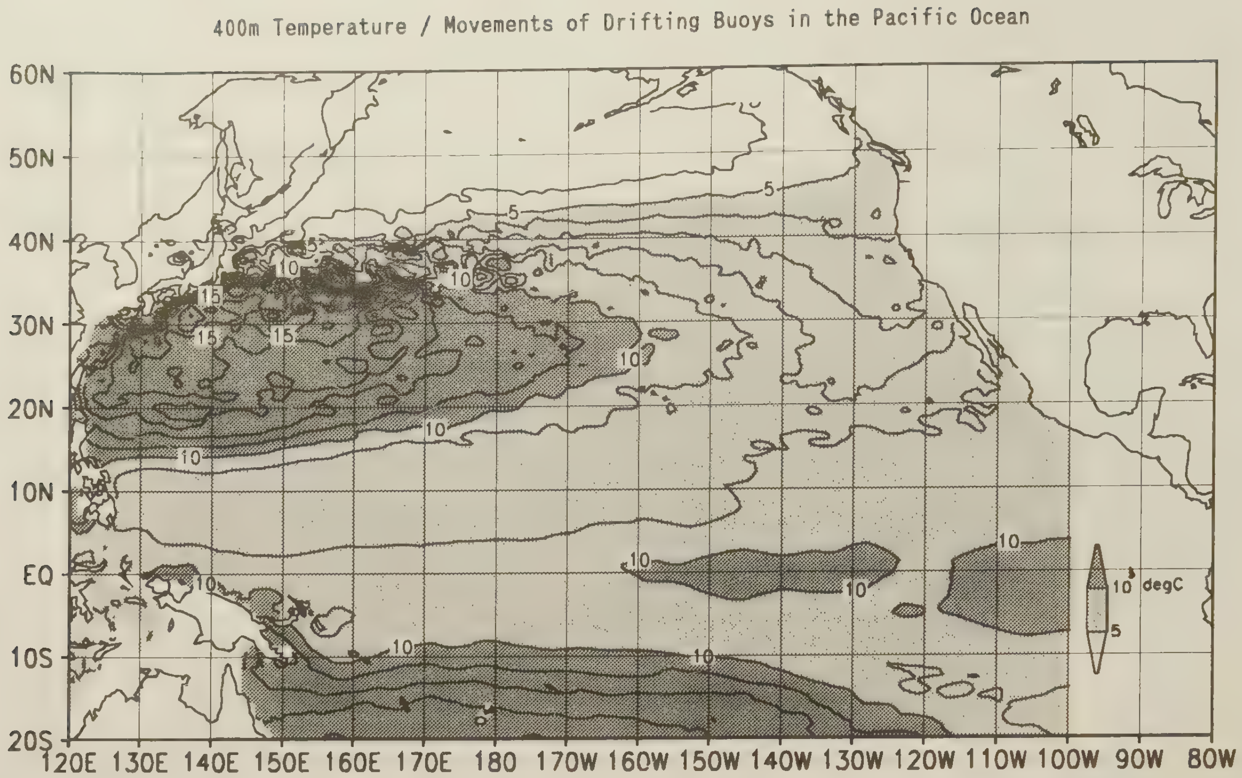

第 18 図　太平洋月平均表層水温図（深さ 100 m）　(2002 年 8 月)
（海洋総合解析システムによる）

Fig. 18　Monthly mean subsurface (100 m) temperature in the Pacific Ocean for August 2002. Contour interval is 1 ℃. (calculated by the Ocean Comprehensive Analysis System)



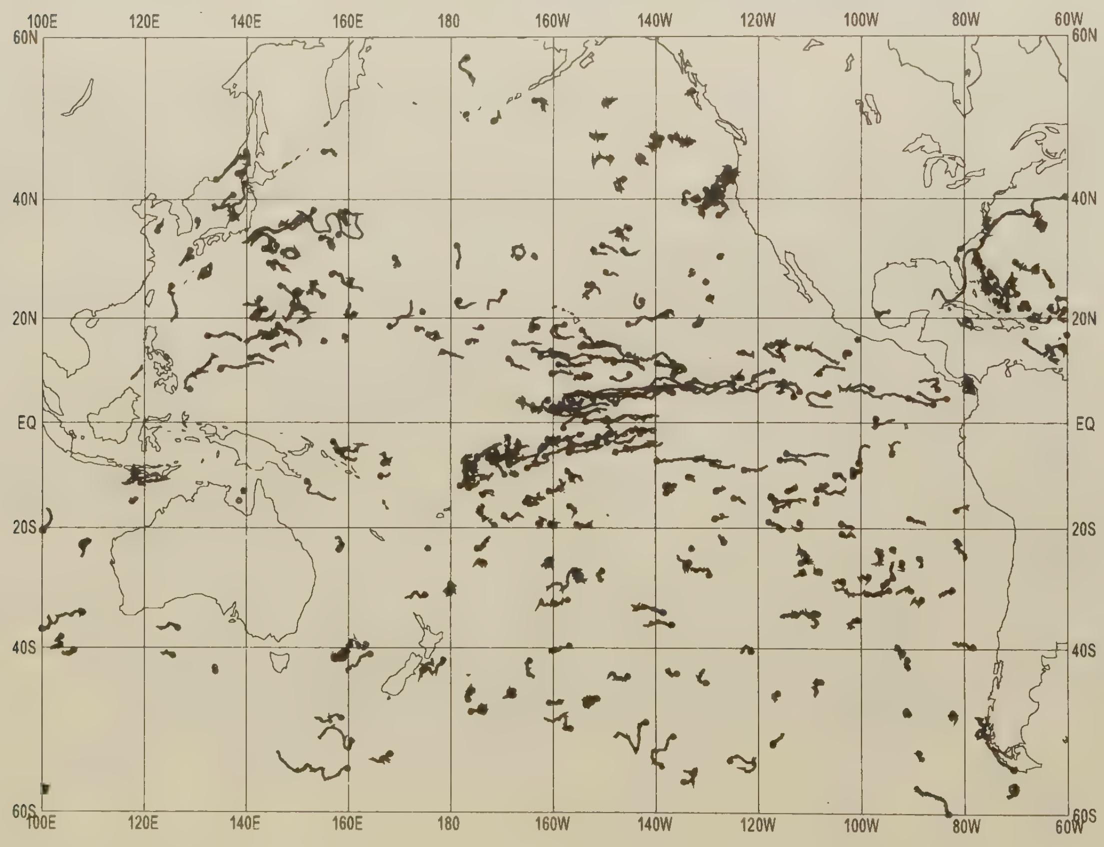

第 19 図　太平洋月平均表層水温図（深さ 200 m）　(2002 年 8 月)
（海洋総合解析システムによる）

Fig. 19　Monthly mean subsurface (200 m) temperature in the Pacific Ocean for August 2002. Contour interval is 1 ℃. (calculated by the Ocean Comprehensive Analysis System)




第 20 図　太平洋月平均表層水温図（深さ 400 m）（2002 年 8 月）
（海洋総合解析システムによる）

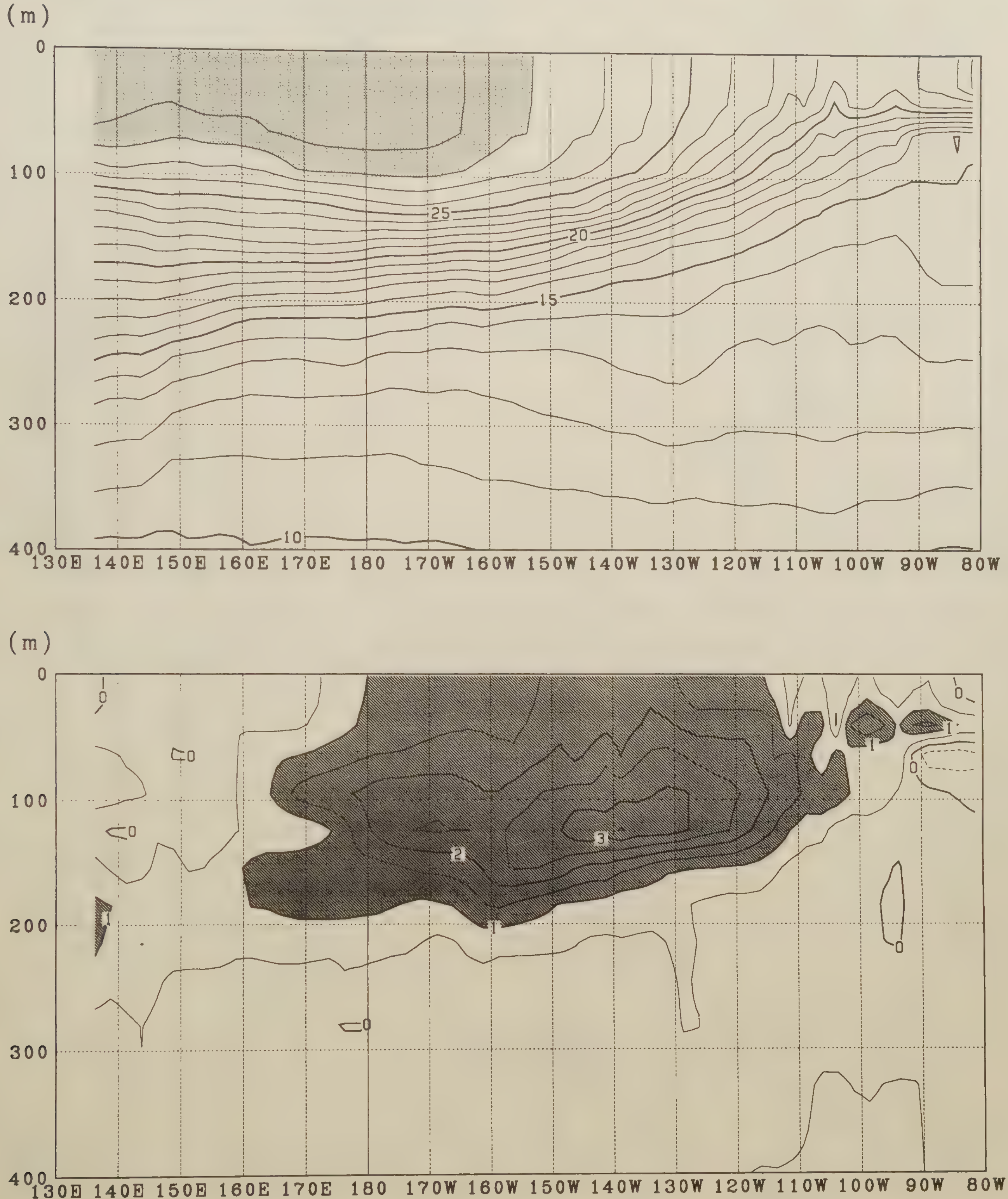
Fig. 20　Monthly mean subsurface (400 m) temperature in the Pacific Ocean for August 2002. Contour interval is 1 ℃. (calculated by the Ocean Comprehensive Analysis System)




第 21 図　太平洋ブイ流跡図（2002 年 8 月）

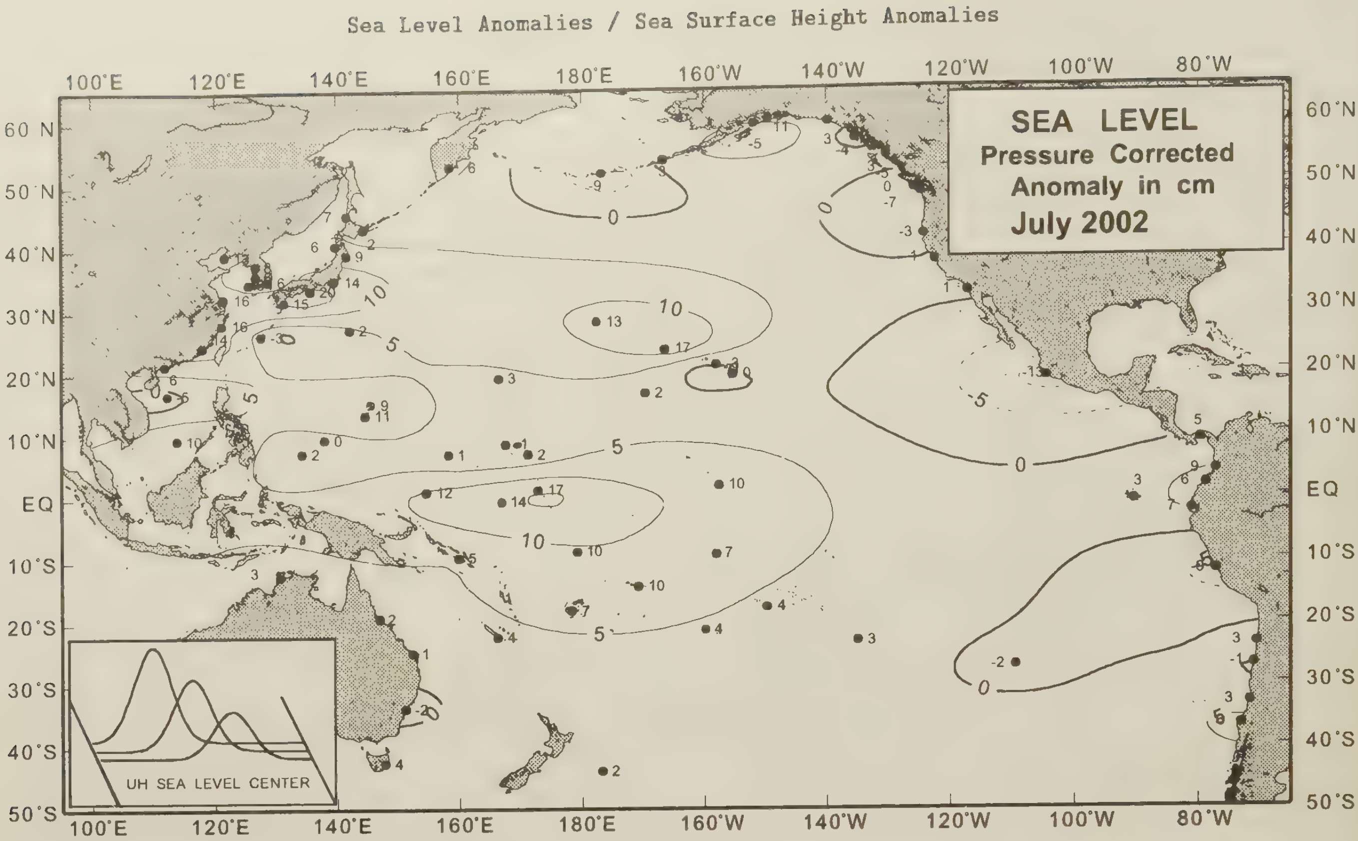
Fig. 21　Trajectories of drifting buoys in the Pacific Ocean during August 2002. Each track is for one buoy. Small circles represent the last positions for the month.

Depth-Longitude Sections of Equatorial Temperature & Anomalies



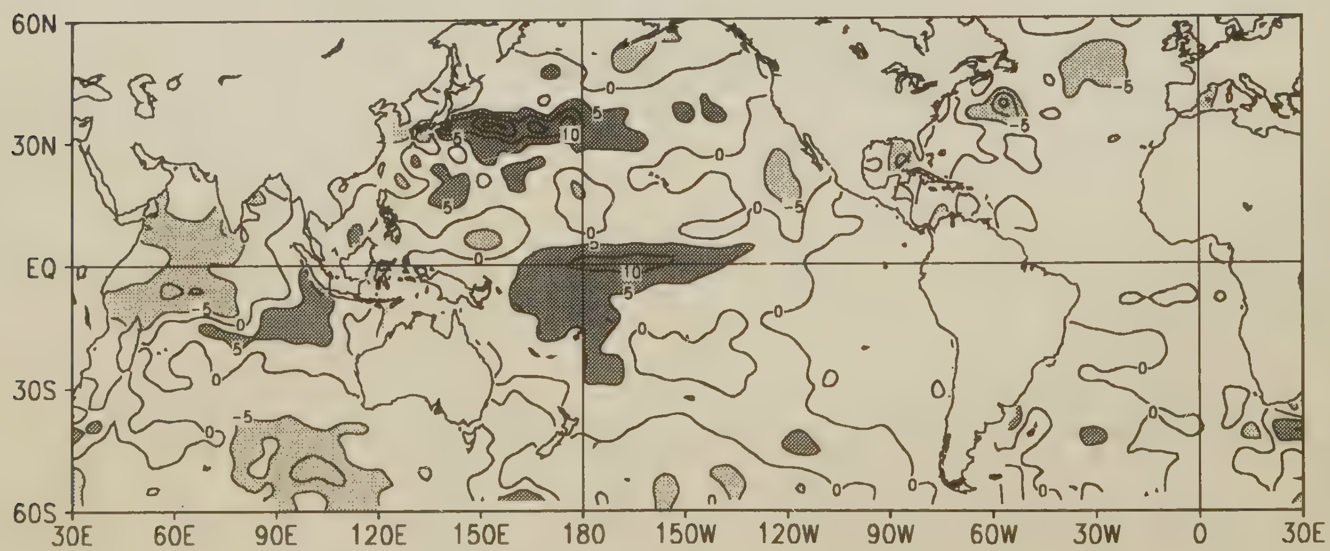

第22図　太平洋赤道に沿う表層水温（上）及び偏差（下）の深度－経度断面図（2002年 8月）

Fig. 22 Depth-longitude sections of temperature (top) and anomalies (bottom) along the equator in the Pacific Ocean for AUG 2002. Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C (top) and 0.5°C (bottom). Values greater than 28°C in the top panel are shaded. In the bottom panel, values greater than 1°C are shaded and values less than -1°C are spotted. Anomalies are computed from 1987-2001 base period means.




第 23 図　太平洋月平均海面水位偏差図 （2002 年 7 月）

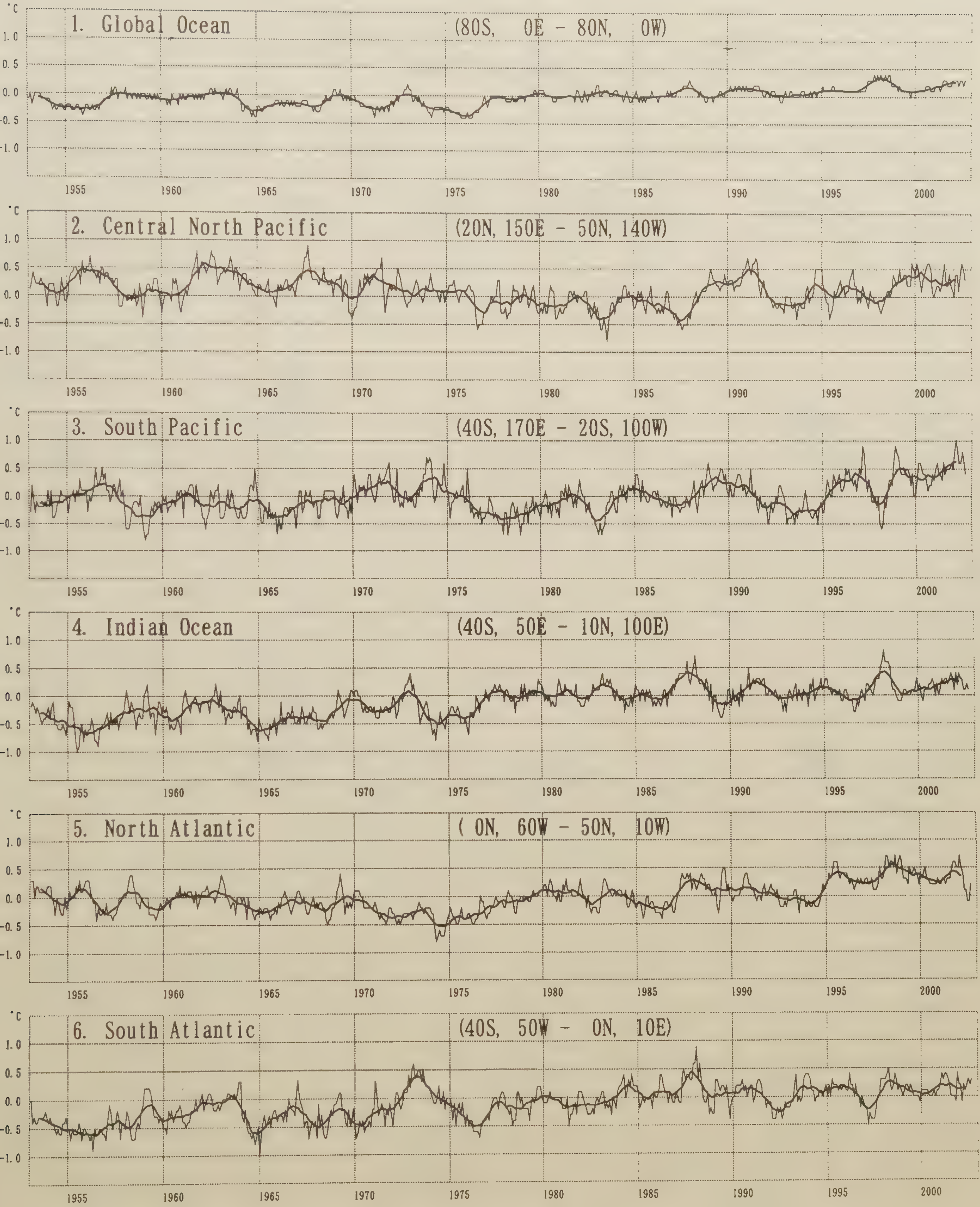
Fig. 23　Monthly sea level anomalies for July 2002 obtained from mean sea level (1975-1995) adjusted for atmospheric pressure. This figure is prepared by the SOC of ISLP-PAC, Department of Oceanography, University of Hawaii.



第 24 図　全球月平均海面高度偏差図 （2002 年 7 月）

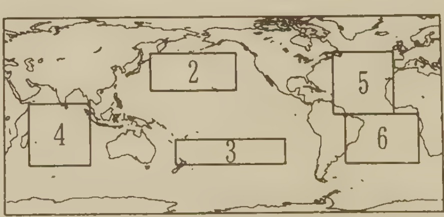
Fig. 24　Monthly sea surface height anomalies in the global ocean derived from the altimeter data of TOPEX/POSEIDON for July 2002. Contour interval is 5 cm. Positive anomalies exceeding +5 cm are shaded and negative anomalies exceeding -5 cm are spotted. Anomalies are computed from 1993-1998 base period means.

Long-term Variation of Monthly Mean SST Anomalies

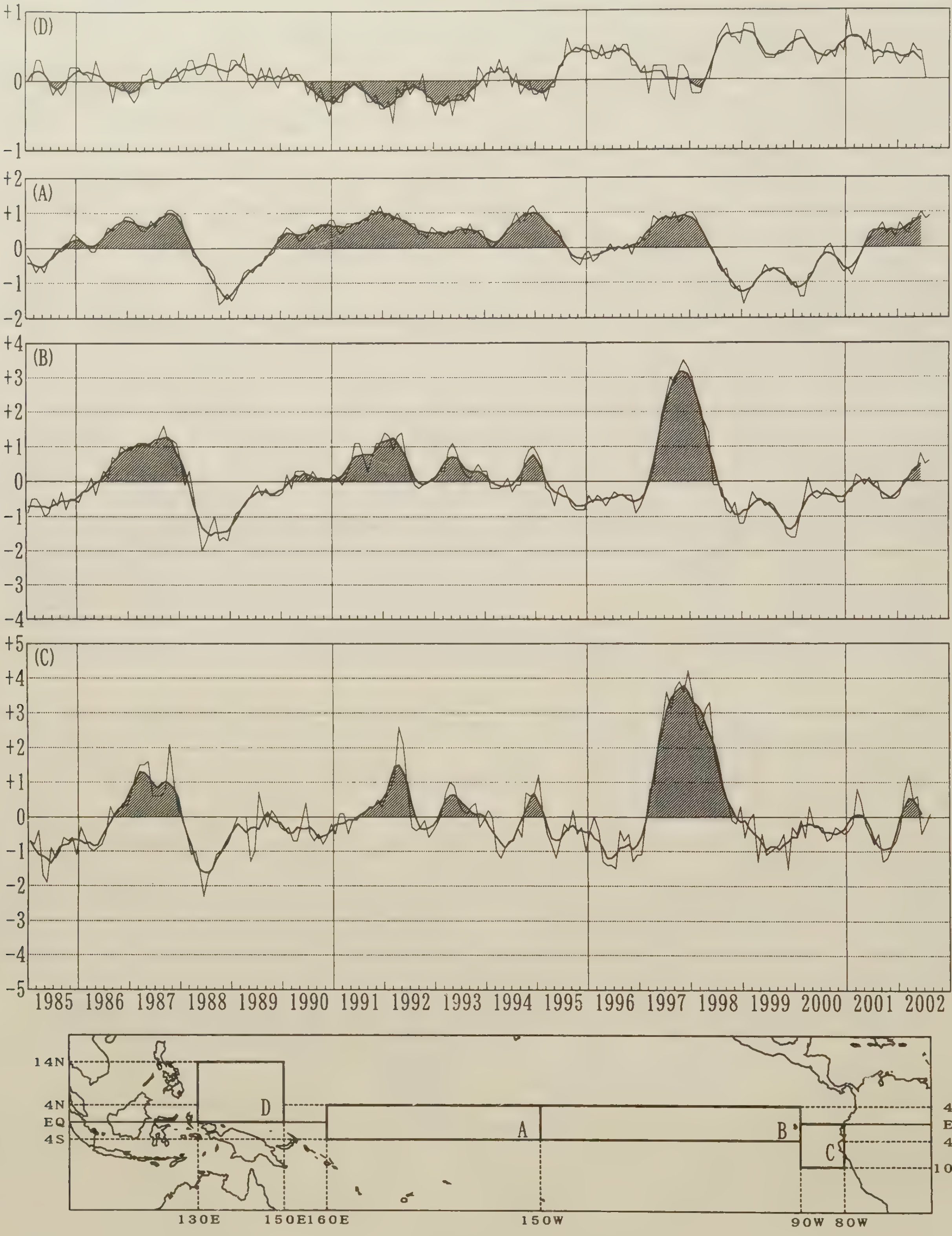



第25図 海域平均海面水温偏差の長期変動

Fig. 25 Long-term variations of monthly mean sea surface temperature anomalies (°C) for the areas shown in the right panel. Anomalies are computed from the JMA climatology (1971-2000). Thin lines show the monthly mean and thick lines their 13-month running means.



## Time Series of Tropical Pacific SST Anomalies




第26図　太平洋熱帯域の海面水温偏差時系列図

Fig. 26 Time series of monthly mean SST anomalies (°C) in the tropical Pacific Ocean for the areas indicated at the bottom panel. Thin lines show the monthly means and thick lines their 5-month running means. Positive anomalies (A, B, C) and negative anomalies (D) are shaded. Anomalies are computed from the JMA climatology (1971-2000).

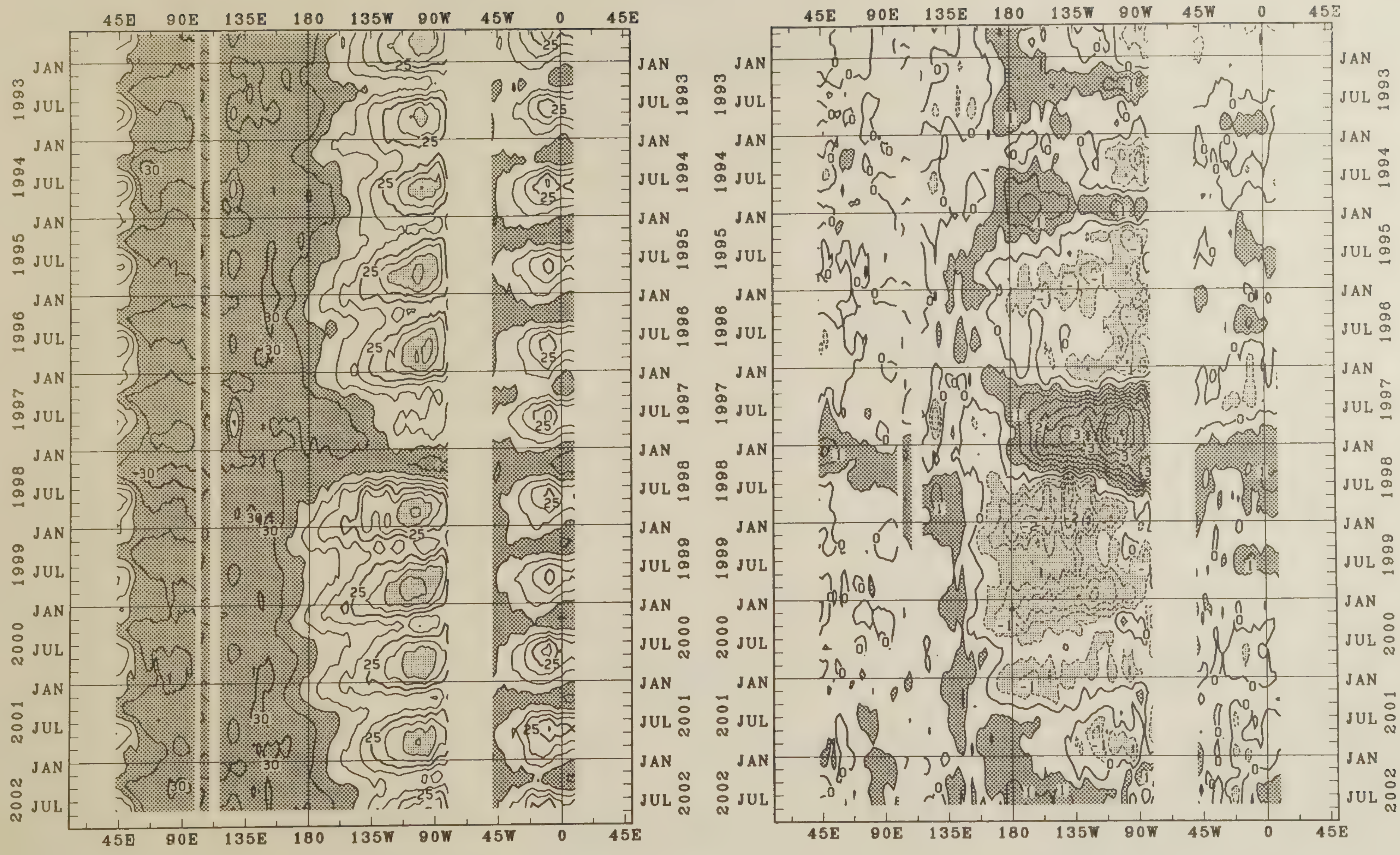
Monitoring Indices in the Tropical Pacific

| MONTH YEAR | REGION D 14N-EQ 130E-150E | | REGION A 4N-4S 160E-150W | | REGION B 4N-4S 150W-90W | | REGION C EQ-10S 90W-80W | | SOI | TAHITI 17-33S 149-37W | DARWIN 12-24S 130-52E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | SEA SURFACE TEMPERATURE AND ANOMALY (°C) | | | | | | | | SOI | SEA LEVEL PRESSURE ANOMALY (hPa) | |
| JAN 00 | 29.2 | 0.7 | 27.0 | -1.0 | 23.8 | -1.6 | 24.0 | -0.5 | 0.5 | 1.2 | 0.1 |
| FEB 00 | 29.0 | 0.7 | 26.6 | -1.4 | 25.3 | -1.0 | 25.9 | -0.1 | 1.1 | 2.6 | -0.3 |
| MAR 00 | 29.1 | 0.6 | 26.7 | -1.4 | 26.6 | -0.5 | 25.7 | -0.6 | 1.1 | 1.6 | -0.6 |
| APR 00 | 29.3 | 0.5 | 27.4 | -0.8 | 27.3 | 0.1 | 25.7 | 0.3 | 1.3 | 1.0 | -1.1 |
| MAY 00 | 29.7 | 0.4 | 27.9 | -0.7 | 26.5 | -0.4 | 24.0 | -0.3 | 0.3 | 0.8 | 0.4 |
| JUN 00 | 29.6 | 0.2 | 28.1 | -0.4 | 25.7 | -0.5 | 22.6 | -0.3 | -0.3 | 0.3 | 0.8 |
| JUL 00 | 29.6 | 0.3 | 28.2 | -0.3 | 25.0 | -0.4 | 21.6 | -0.3 | -0.3 | -0.5 | 0.0 |
| AUG 00 | 29.6 | 0.4 | 28.4 | 0.0 | 24.5 | -0.2 | 20.2 | -0.7 | 0.6 | 0.2 | -0.9 |
| SEP 00 | 29.7 | 0.4 | 28.5 | 0.1 | 24.4 | -0.3 | 19.9 | -0.6 | 0.9 | 1.5 | -0.2 |
| OCT 00 | 29.7 | 0.3 | 28.2 | -0.2 | 24.3 | -0.4 | 20.6 | -0.3 | 1.0 | 0.3 | -1.5 |
| NOV 00 | 29.8 | 0.5 | 27.9 | -0.5 | 24.1 | -0.6 | 21.4 | -0.4 | 1.8 | 1.2 | -2.3 |
| DEC 00 | 29.4 | 0.4 | 27.5 | -0.7 | 24.4 | -0.6 | 22.4 | -0.5 | 0.9 | -0.9 | -2.6 |
| JAN 01 | 29.4 | 0.9 | 27.4 | -0.6 | 25.1 | -0.3 | 24.1 | -0.4 | 0.8 | 2.5 | 0.6 |
| FEB 01 | 28.9 | 0.6 | 27.2 | -0.8 | 26.0 | -0.3 | 25.8 | -0.2 | 1.0 | -0.4 | -3.2 |
| MAR 01 | 29.1 | 0.6 | 27.6 | -0.5 | 27.3 | 0.2 | 27.1 | 0.8 | 0.8 | 1.3 | -0.2 |
| APR 01 | 29.4 | 0.6 | 28.0 | -0.2 | 27.3 | 0.1 | 25.8 | 0.4 | 0.1 | -0.1 | -0.3 |
| MAY 01 | 29.7 | 0.4 | 28.7 | 0.1 | 26.8 | -0.1 | 24.1 | -0.2 | -0.7 | -0.2 | 0.9 |
| JUN 01 | 30.1 | 0.7 | 28.9 | 0.4 | 26.3 | 0.1 | 22.4 | -0.5 | 0.2 | -0.2 | -0.5 |
| JUL 01 | 29.5 | 0.2 | 29.0 | 0.5 | 25.3 | -0.1 | 21.1 | -0.8 | -0.2 | -0.1 | 0.3 |
| AUG 01 | 29.5 | 0.3 | 28.9 | 0.5 | 24.7 | 0.0 | 20.4 | -0.5 | -0.7 | -0.9 | 0.1 |
| SEP 01 | 29.6 | 0.3 | 29.1 | 0.7 | 24.2 | -0.5 | 19.2 | -1.3 | 0.1 | -0.2 | -0.4 |
| OCT 01 | 29.9 | 0.5 | 28.8 | 0.4 | 24.2 | -0.5 | 19.7 | -1.2 | -0.1 | -0.9 | -0.9 |
| NOV 01 | 29.8 | 0.5 | 28.9 | 0.5 | 24.2 | -0.5 | 20.9 | -0.9 | 0.6 | 0.7 | -0.4 |
| DEC 01 | 29.3 | 0.3 | 28.5 | 0.3 | 24.5 | -0.5 | 22.2 | -0.7 | -0.8 | -1.2 | 0.3 |
| JAN 02 | 28.7 | 0.2 | 28.7 | 0.7 | 25.0 | -0.4 | 24.2 | -0.3 | 0.3 | 1.3 | 0.7 |
| FEB 02 | 28.6 | 0.3 | 28.5 | 0.5 | 26.3 | 0.0 | 26.7 | 0.7 | 0.7 | 1.5 | -0.2 |
| MAR 02 | 28.8 | 0.3 | 28.5 | 0.4 | 27.2 | 0.1 | 27.5 | 1.2 | -0.2 | 0.4 | 1.0 |
| APR 02 | 29.3 | 0.5 | 29.0 | 0.8 | 27.5 | 0.3 | 25.9 | 0.5 | -0.1 | 0.1 | 0.3 |
| MAY 02 | 29.7 | 0.4 | 29.4 | 0.8 | 27.2 | 0.3 | 24.9 | 0.6 | -1.3 | -1.1 | 0.7 |
| JUN 02 | 29.8 | 0.4 | 29.5 | 1.0 | 27.0 | 0.8 | 22.4 | -0.5 | -0.4 | -0.2 | 0.4 |
| JUL 02 | 29.3 | 0.0 | 29.3 | 0.8 | 25.9 | 0.5 | 21.7 | -0.2 | -0.7 | 0.5 | 1.6 |
| AUG 02 | 29.2 | 0.0 | 29.3 | 0.9 | 25.3 | 0.6 | 21.0 | 0.1 | -1.2 | -1.4 | 0.5 |

第1表　太平洋熱帯域の大気及び海洋の監視指数

Table 1 Atmospheric and oceanic monitoring indices in the tropical Pacific Ocean

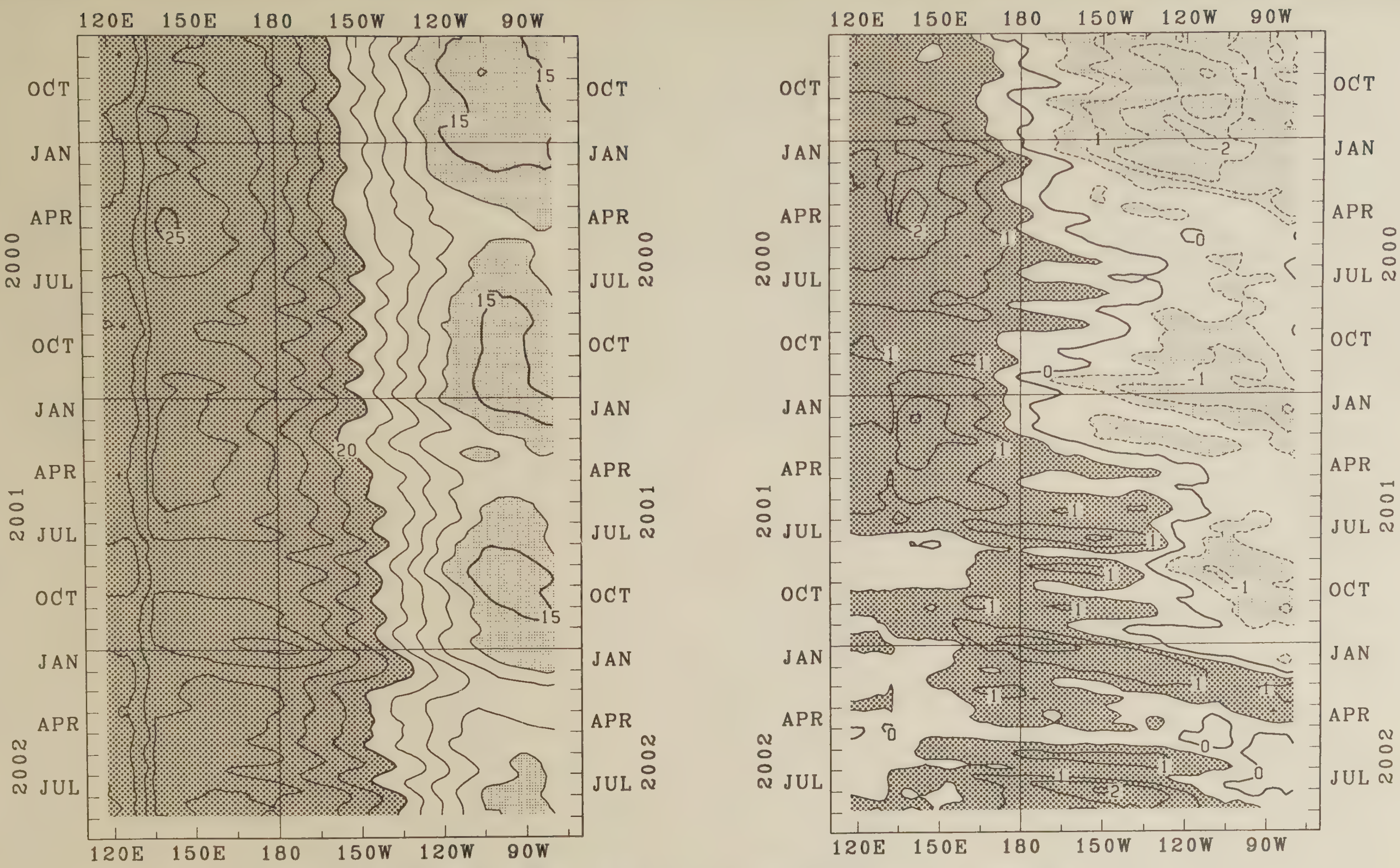
Time-Longitude Section of SST & Anomalies




第 27 図　赤道に沿った海面水温（左）および偏差（右）の時間-経度断面図

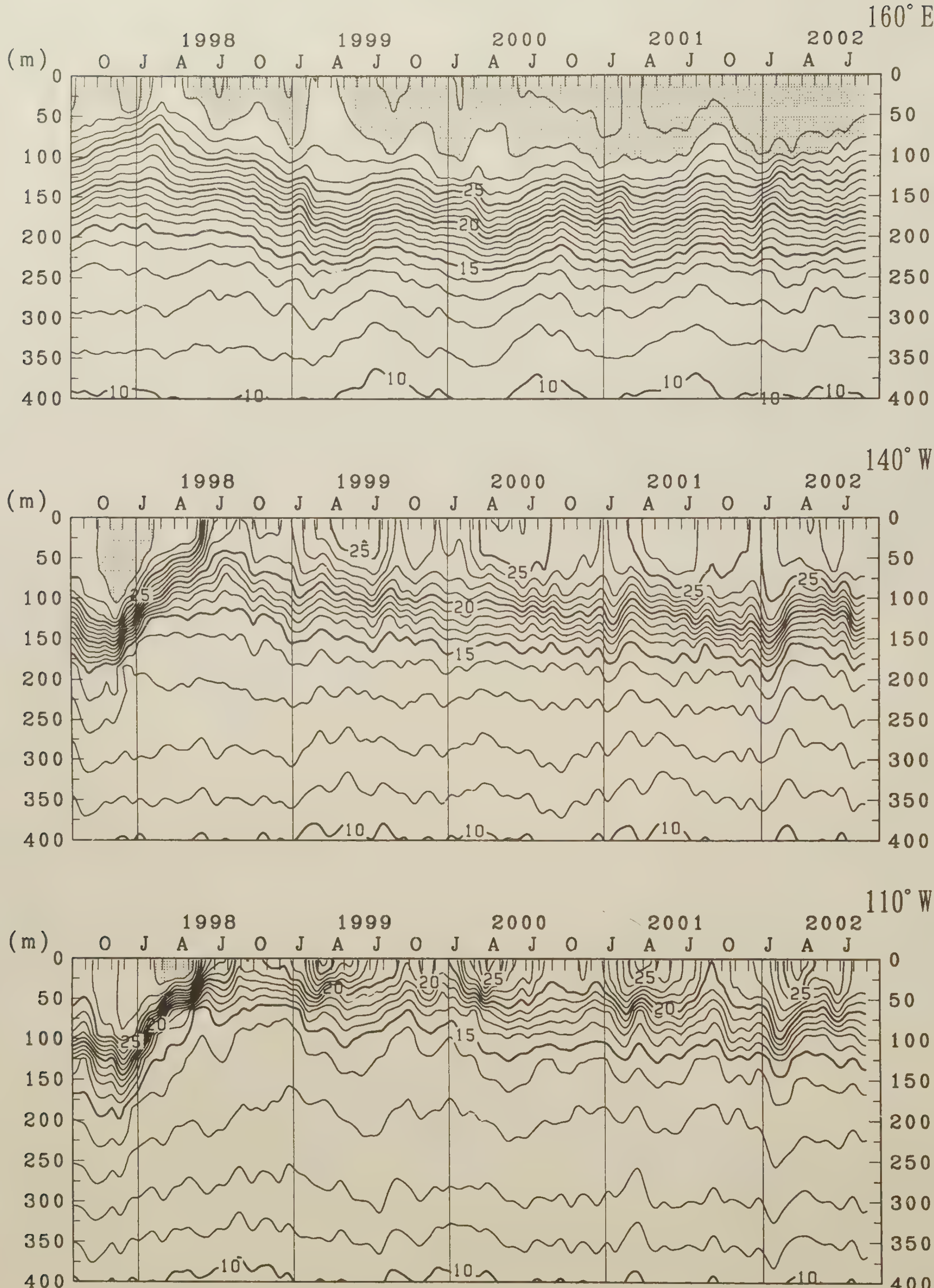
Fig. 27　Time-longitude sections of SSTs (left) and anomalies (right) along the equator (2 °N-2 °S) in the global ocean. Contour interval is 1 °C (left) and 0.5 °C (right). Values greater than 28 °C are shaded and values less than 23 °C are spotted in the left panel. Dashed contours indicate negative anomalies in the right panel. Anomalies are computed from 1971-2000 base period means.

Time-Longitude Sections of Ocean Heat Content & Anomalies (Eq.)




第28図　太平洋の赤道に沿う海洋表層の貯熱量（左）及び偏差（右）の時間－経度断面図

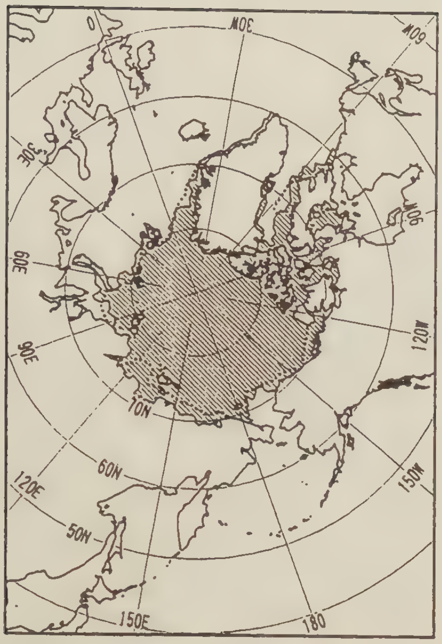
Fig. 28　Time-longitude sections of ocean heat content in the upper 260 m along the equator (left) and anomalies (right) in the Pacific Ocean. Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C (left) and 0.5°C (right). Values greater than 20°C are shaded and values less than 16°C are spotted in the left panel. Dashed contours indicate negative anomalies in the right panel. Anomalies are computed from 1987-2001 base period means.




第29図　太平洋赤道域の表層水温の時間－深度断面図

（上：西部、中：中部、下：東部）

Fig. 29 Time-depth sections of equatorial subsurface temperature for the western Pacific (top, 160°E), the central Pacific (middle, 140°W) and the eastern Pacific (bottom, 110°W). Data are derived from the Ocean Data Assimilation System of JMA. Contour interval is 1°C. Values greater than 28°C are shaded.

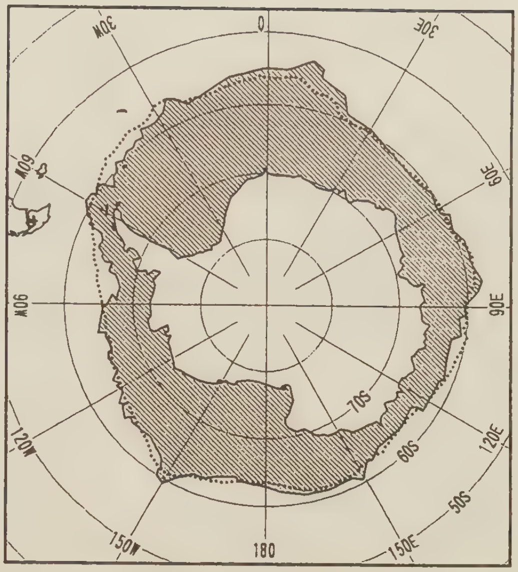



第30-1図　北極域の海氷図（2002年 8月15日）

Fig.30-1 Sea ice chart in the Arctic on 15 Aug. 2002.

The shaded area represents the sea ice extent. The dotted line denotes the mean ice edge averaged for the period from 1972 through 1990.

The data source is the National Ice Center (USA).




第30-2図　南極域の海氷図（2002年 8月14日）

Fig.30-2 Sea ice chart in the Antarctic on 14 Aug. 2002.

The shaded area represents the sea ice extent. The dotted line denotes the mean ice edge averaged for the period from 1973 through 1990.

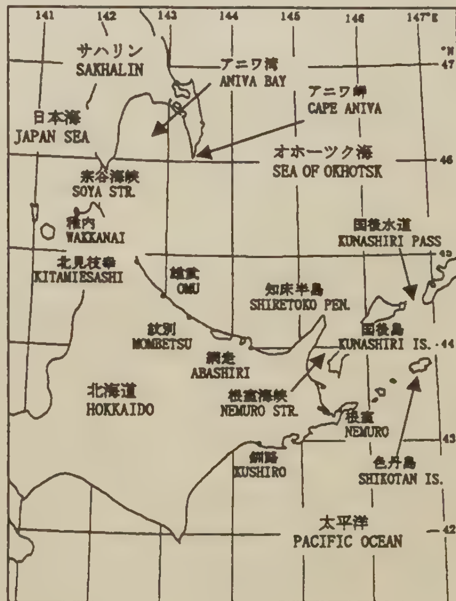
The data source is the National Ice Center (USA).

第30-1表 流氷に関する初終日(2001年12月から2002年5月まで)

Table 30-1. First and Last dates of drift ice at the coastal stations (From December 2001 to May 2002)

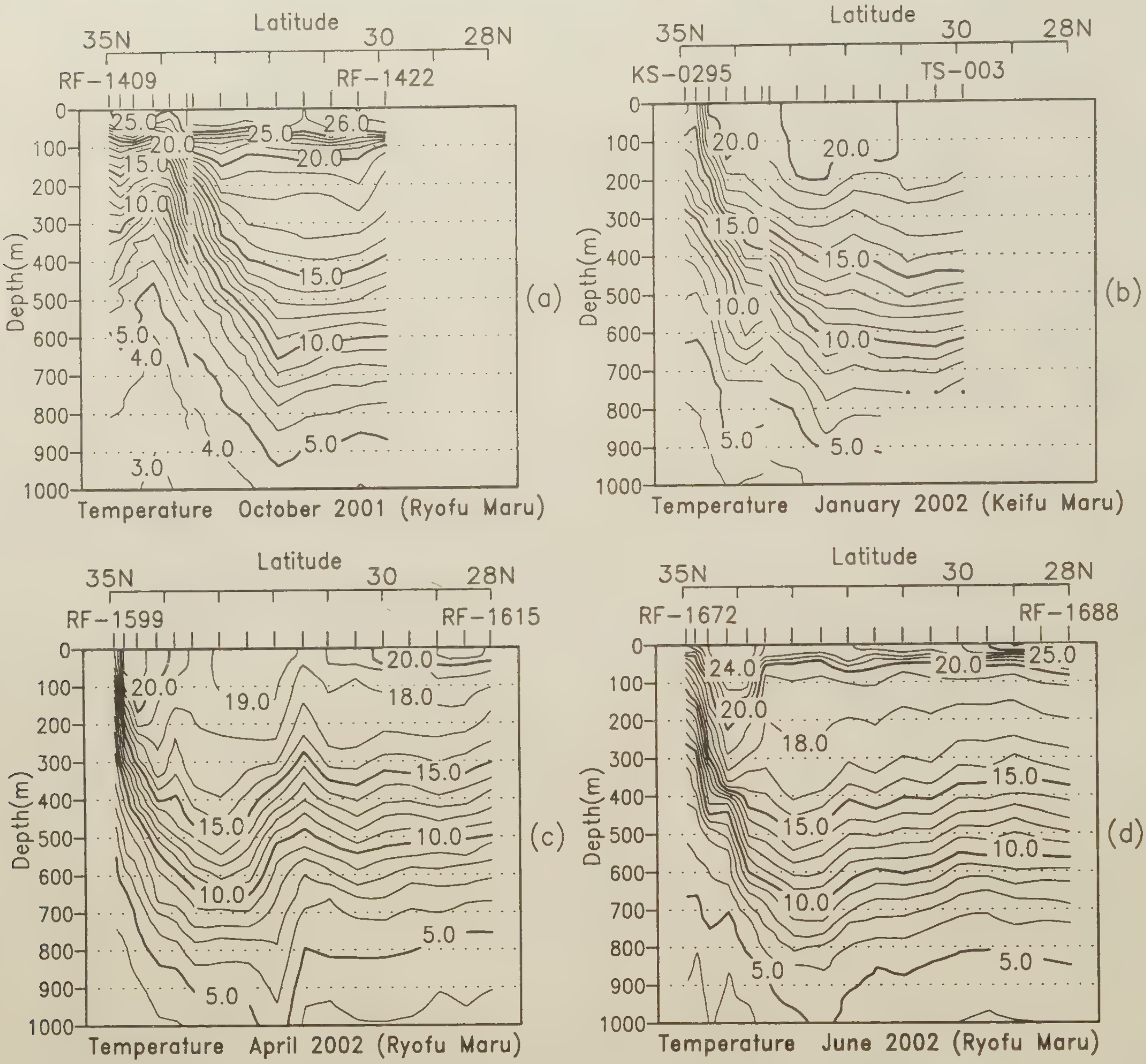
| 地点 Station | 流氷 Drift ice | | | | 流氷接岸初日 First date of drift ice on shore | 海明け First date of shore lead appearance |
|---|---|---|---|---|---|---|
| | 初日 First date | 終日 Last date | 期間 Period | 日数 Days | | |
| 稚内 WAKKANAI | — | — | — | 0(-11) | — | * |
| 北見枝幸 KITAMIESASHI | 1.17(- 6) | 3. 7(-25) | 50(-19) | 24(-22) | 1.29(- 2) | 2.20(-20) |
| 雄武 OMU | 1.19(- 3) | 3. 8(-28) | 49(-25) | 36(-19) | 1.29(- 3) | 2.23(-19) |
| 紋別 MOMBETSU | 1.17(- 5) | 3. 9(-27) | 52(-22) | 39(-19) | 1.31(- 6) | 2.23(-20) |
| 網走 ABASHIRI | 12.27(-24) | 3.25(-22) | 89(+ 2) | 69(- 8) | 1.17(-15) | 3. 9(-15) |
| 根室 NEMURO | 2. 1(-12) | 2.27(-34) | 27(-22) | 12(-21) | — | * |
| 釧路 KUSHIRO | — | — | — | 0(- 2) | — | * |

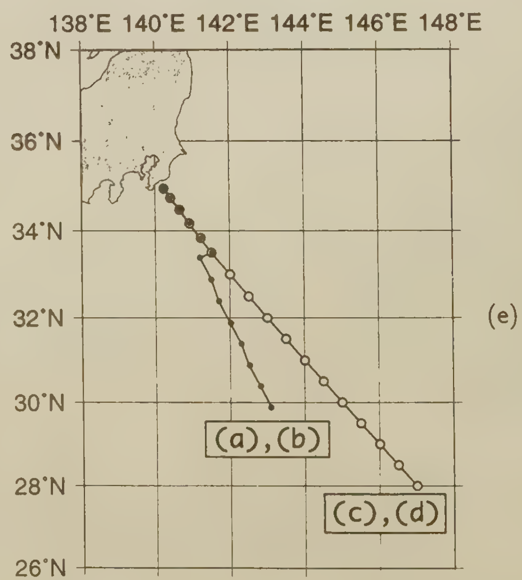
() : deviation from normal for the period from 1971 to 2000
+ : later or more than normal, - : earlier or less than normal
* : no observations, — : no phenomenon




第30-3図 沿岸海氷観測地点地図

Fig. 30-3 Map of the coastal stations

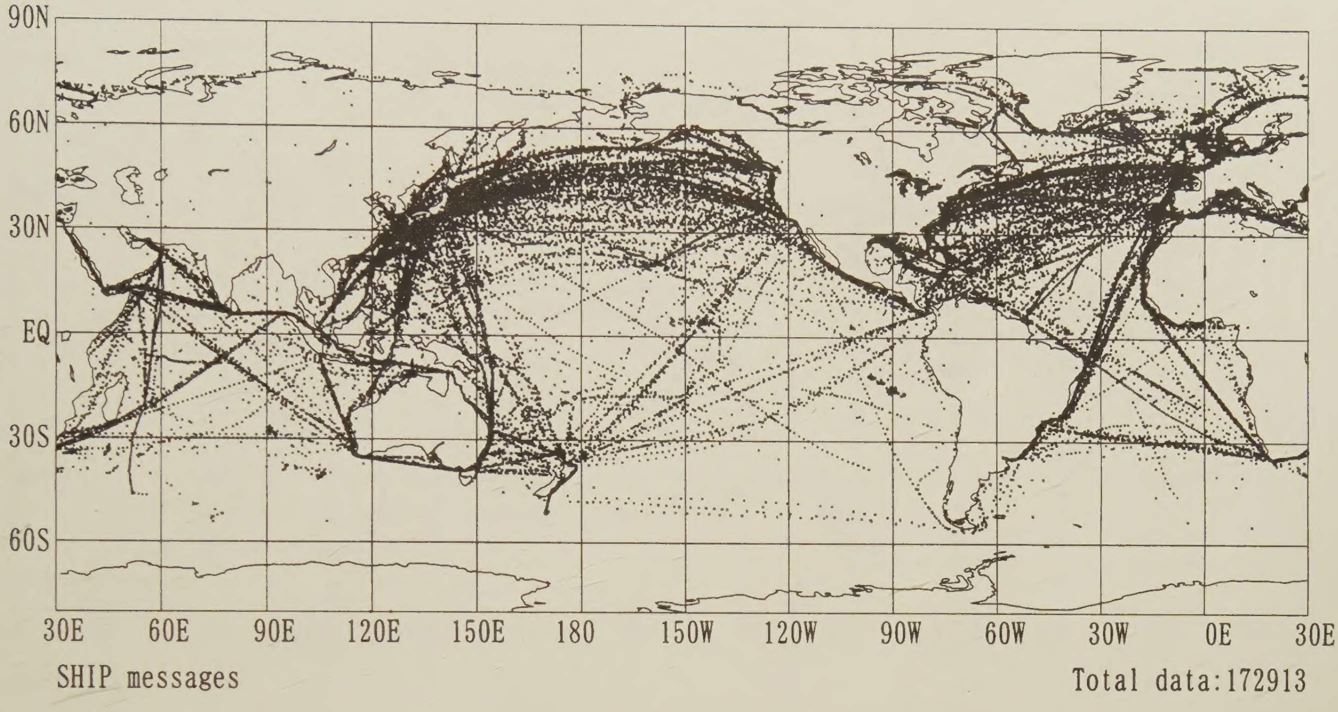


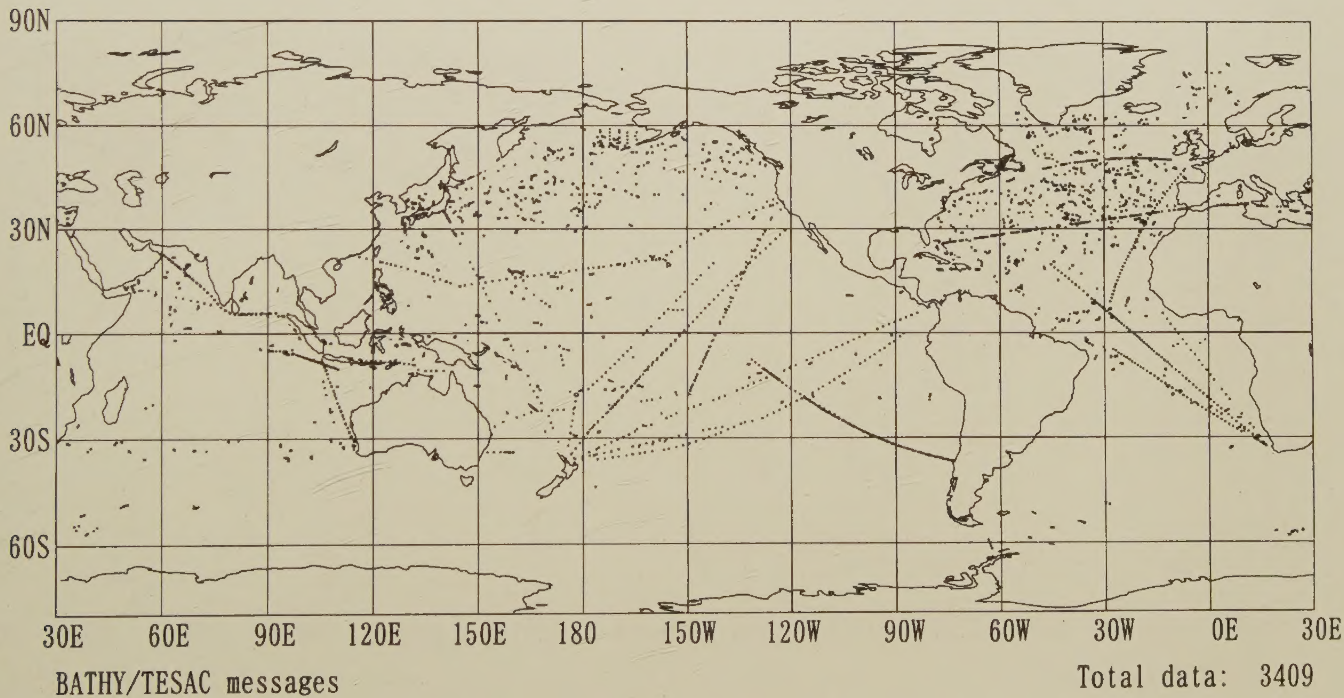




**第 31 図** 気象庁凌風丸及び神戸海洋気象台啓風丸による房総沖線に沿った水温鉛直断面図.
(a) 2001 年 10 月 (凌風丸), (b) 2002 年 1 月 (啓風丸), (c) 2002 年 4 月 (凌風丸), (d) 2002 年 6 月 (凌風丸), (e) 観測位置図.

**Fig. 31** Vertical sections of water temperature (°C) along the off Boso line by R/V Ryofu Maru of JMA and R/V Keifu Maru of Kobe Marine Observatory.
(a) October 2001 (Ryofu Maru), (b) January 2002 (Keifu Maru), (c) April 2002 (Ryofu Maru), (d) June 2002 (Ryofu Maru) and (e) Location of observations.

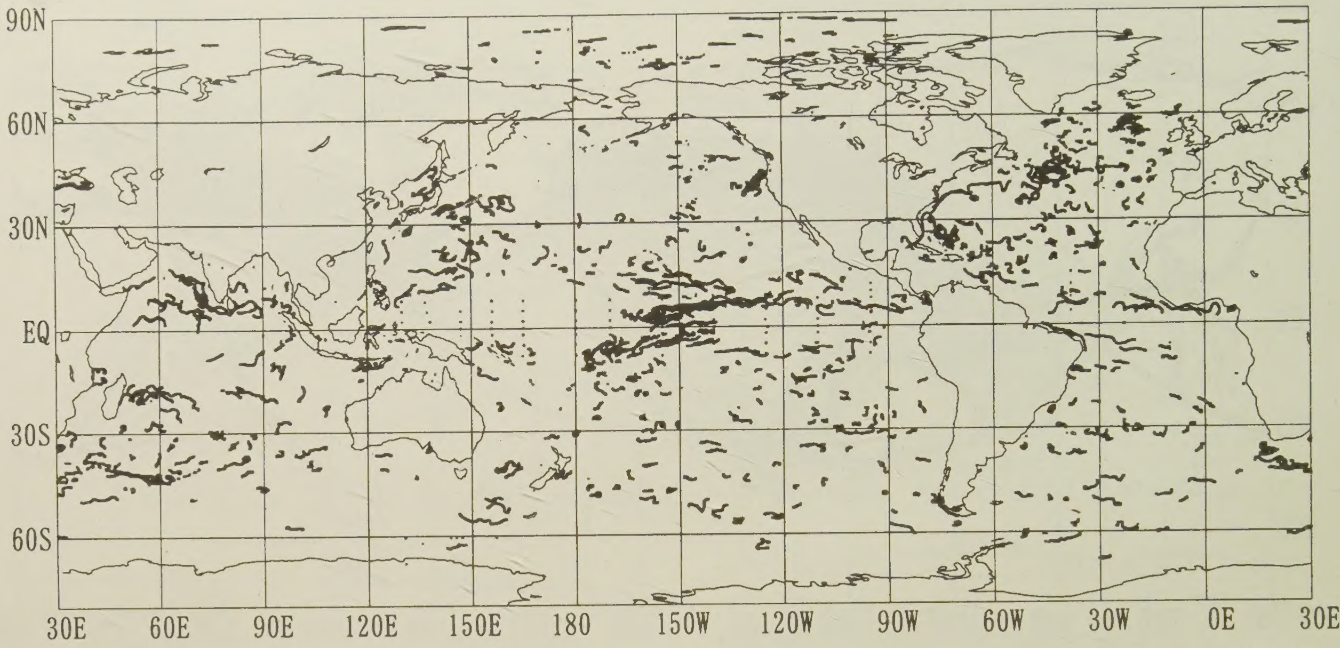
## Geographical Distribution of Oceanographic Data



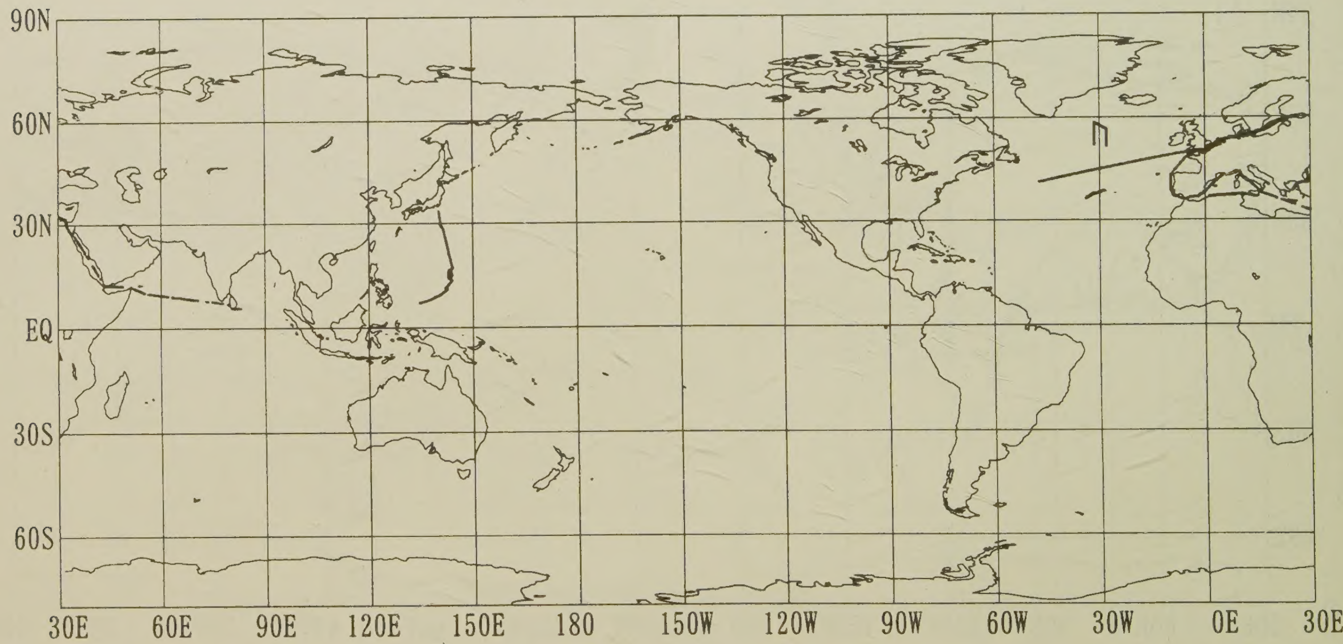




第32-1図　測点分布図(2002年 8月)

Fig. 32-1 Geographical distribution of SHIP messages (SST data, top) and BATHY/TESAC messages (subsurface temperature data, bottom) for AUG 2002.




BUOY messages Total data:509657




TRACKOB messages Total data: 6223

第32-2図 測点分布図(2002年 8月)

Fig. 32-2 Geographical distribution of BUOY messages (buoy drift and SST data, top) and TRACKOB messages (ship drift and SST data, bottom) for AUG 2002.

# 気 象 庁 海 洋 月 報

Monthly Ocean Report

August 2002 (No. 116)

本月報掲載の 2002 年 8 月のプロダクトには、気象庁が観測したデータ及び GTS（全球気象通信網）を通じて入手した国際気象通報式による通報のほか、下記の機関等から提供いただいたデータを使用しています。御礼申し上げます。

防衛庁、水産庁、海上保安庁

水産総合研究センター

海洋科学技術センター、（社）漁業情報サービスセンター

東京大学

水産試験場等（北海道、岩手県、秋田県、山形県、福島県、茨城県、千葉県、東京都、富山県、静岡県、愛知県、三重県、兵庫県、和歌山県、山口県、徳島県、高知県、佐賀県、宮崎県、沖縄県）

（順不同）

平成１４年９月２０日発行

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